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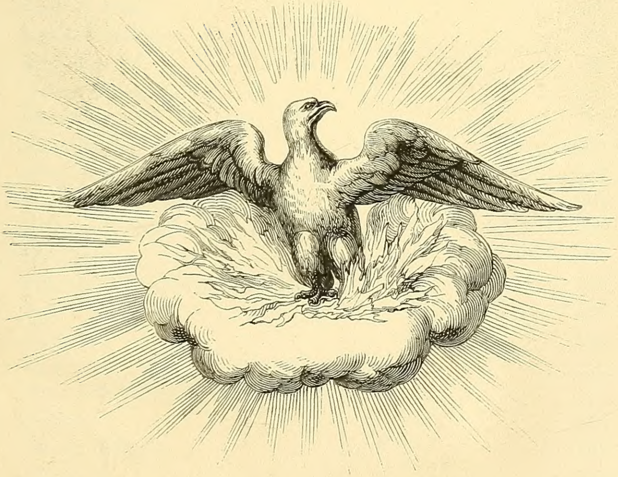
COLOURED ILLUSTRATIONS OF British Birds, AND THEIR Eggs.

BY H. L. MEŸER.

VOL. III.

CONTAINING SIXTY PLATES.



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CONTENTS

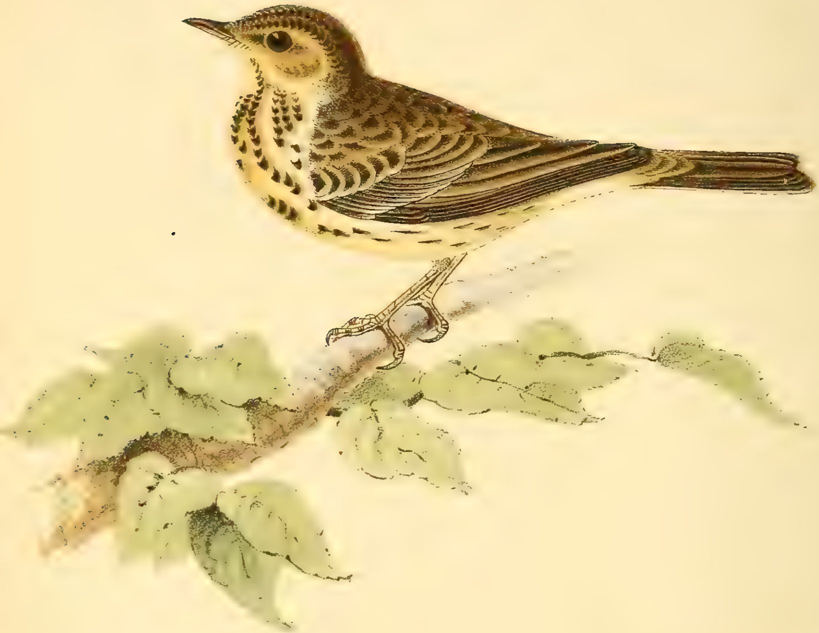
OF

THE THIRD VOLUME.

	PLATE	PAGE
Tree Pipit	91.	1
Meadow Pipit	92.	6
Richard's Pipit	93.	13
Sky-lark	94.	17
Wood-lark	95.	24
Shore-lark	96.	29
Snow Bunting	97.	34
Lapland Bunting	98.	39
Lark Bunting	99.	44
Yellow Bunting	100.	49
Reed Bunting	101.	56
Cirl Bunting	102.	61
Ortolan Bunting	103.	65
House Sparrow	104.	69
Tree or Mountain Sparrow	105.	76
Chaffinch	106.	81
Mountain Finch or Brambling	107.	88
Siskin	108.	93
Goldfinch	109.	100
Linnet	110.	105
Mountain Linnet	111.	111
Redpole	112.	116
Mealy Redpole	113.	123
Hawfinch	114.	126
Greenfinch	115.	133
Common Crossbill	116.	139
Parrot Crossbill	117.	147
White-winged Crossbill	118.	150

	PLATE	PAGE
Pine Bulfinch	119.	153
Bulfinch	120.	157
Bohemian Chatterer	121.	161
Starling	122.	167
Rose-coloured Pastor	123.	173
Raven	124.	179
Carrion Crow	125.	190
Hooded Crow	126.	194
Rook	127.	197
Jackdaw	128.	205
Magpie	129.	208
Chough	130.	212
Jay	131.	216
Nutcracker	132.	220
Great Black Woodpecker	133.	225
Green Woodpecker	134.	231
Great Spotted Woodpecker	135.	236

Pl. 91.



ILLUSTRATIONS

OF

BRITISH BIRDS.

INSESSORES.
DENTIROSTRES.

ANTHIDÆ.

PLATE XCI.

TREE PIPIT.

ANTHUS ARBOREUS.

THE Tree Pipit is a summer visitor in this country, and is rather late in the time of its arrival, seldom appearing before the middle of April, or beginning of May. It appears to be partially distributed, and is probably in no place very abundant. It is chiefly found in hilly and well wooded localities, and seems to prefer cultivated or enclosed parts, such as fields where large trees abound, parks, &c, and is seldom or never met with on exposed moors or downs. In its habits this species is solitary, and does not congregate in flocks in the manner of the meadow pipit, and it is supposed to travel alone in its migratory journeys. Although often confused with the last mentioned species, on account of its great similarity of plumage, this bird has habits and manners that sufficiently distinguish it, independent of the different formation of its legs and beak.

The song of the Tree Pipit is very sweet and pleasing, and frequently delivered on the wing. In summer, the male may be seen ascending, with a twittering note, from the top of a tree to a little elevation in the air, and then, commencing his song and his return at the same time, slowly descends, with tail fanned and wings erect. Sometimes the song is uttered from the upper branch of a tree, or from the ground.

The nest of this species, which is almost invariably placed upon the ground, is composed of dry grasses and fibrous roots, and lined with similar materials in a finer state, intermingled with hair. The eggs of the Tree Pipit, according to Montagu, are dirty bluish-white, thickly blotched and spotted with purplish-brown. Temminck describes them as reddish-white, entirely covered with numerous specks of deep red. In these descriptions we are shown the two most distinct variations of the Tree Pipit's eggs, the former of which we consider the most characteristic of the species, as the latter assimilates with the eggs of the meadow-pipit. We possess specimens of both these varieties of the Tree Pipit's eggs, but the ground of both is reddish. One, which we represent, (in fig. 91,) has all the peculiarities of this species in great perfection ; it is nearly round, being but little lengthened at the larger end, and the surface bears very little polish. The ground colour is reddish-white, clouded with pale purple-ash, and more distinctly marked and marbled with purplish-red spots, of various forms and sizes ; there appear, besides, several very distinct spots and hair-like streaks of rich black. The whole has more the appearance of a pebble than of an egg, and is nine lines in length by eight in diameter. Another specimen, of the opposite character, is in the ground colour pale purplish-red, finely mottled with minute marks of a darker red, which produce a net-like, or reticulated appearance; this egg is much smaller in size, but has the same characteristic form. In these eggs there is no difference in colour or intensity between the larger and the smaller ends. We may observe that the variation of colour in the eggs of all our common pipits is very remarkable. The locality chosen for the Tree Pipit's nest is among high grass or young wheat, clover or other low herbage, on the borders of woods or thickets.

The moult of this species takes place in August, and in September it commences its southward journey.

The Tree Pipit is found to inhabit sparingly most of the enclosed and wooded parts of England and Wales, but appears to be more frequently seen in the southern, than in the northern counties. It penetrates, nevertheless, in summer, as far to the north as Sweden and Norway, retiring from thence early in autumn. This species is very plentiful in summer in the central parts of Europe, where hilly and mountainous tracts, partly covered with forests, occur; it abounds in the neighbourhood of the Hartz mountains, and also in the forests in Thuringia, is plentiful in France, and in Switzerland equally common, being found upon the mountains as far up as the forests or wooded tracts extend. It is found, besides, in most of the temperate and warmer parts of Europe, but probably retires beyond the fortieth degree of north latitude in winter. The most northern part we are aware of its inhabiting at that season is Corfu, where, according to Mr. Drummond, it is very common in the winter months, but rare in summer.

In its summer dress the upper plumage of this bird is hair-brown, the edges of the feathers lighter than their centres. The wings are deep brown, the quill-feathers narrowly edged with a paler tint, the secondaries, tertials, and greater coverts more broadly edged, and the first row of lesser coverts distinctly bordered with dull white. The two central tail-feathers are hair-brown, the rest dusky, except the two outer ones, which are bordered on the outer edge with dull white, and have a wedge-shaped spot of the same on the inner web, which shows distinctly when the tail is spread. The nape and cheeks are pale hair-brown. The eyestreak, and the sides of the neck and throat, are brownish-yellow, which spreads slightly over the breast; the rest of the under parts are dull white, with a tinge of olive-brown upon the flanks. A dusky streak passes from the base of the lower mandible towards the breast, which is marked with roundish dusky spots, and the flanks with fine streaks of the same colour. The iris is hazel; the beak dusky, except the base of the lower mandible, which inclines to ochre; the legs and feet are yellowish flesh colour, the claws pale dusky brown.

In autumn, after the annual moult, the upper plumage is strongly tinged with olive, and the quill and tail feathers distinctly bordered with that colour. At this period, the rufous colour upon the throat is less apparent, and the under parts are generally tinged with olive-yellow.

The young birds, in autumn, resemble the adult at that season, and the two sexes are nearly alike.

The entire length of this species is six inches and a half. The wing measures, from the carpus to the tip, about three inches and a quarter; the tail extends one inch and a quarter beyond the tips of the folded wings, and the longest tertial reaches nearly to the tip of the quill-feathers when the wing is closed. The beak measures four lines from the forehead to the point, and is rather slender. The tarsi are ten lines in length, the middle toe nine; the claw of the hinder toe measures three and a half lines, and is considerably arched, and the whole expanse of the foot is one inch six lines. The primary quills and tertials in this species are broad, and the tail-feathers rather pointed.

The food of the Tree Pipit consists of insects of many sorts, such as beetles, grasshoppers, flies of various kinds, gnats, &c., also the larvæ of many insects.

The figure in Plate 91 represents the Tree Pipit in summer plumage, and the egg similarly marked belongs to the same species.

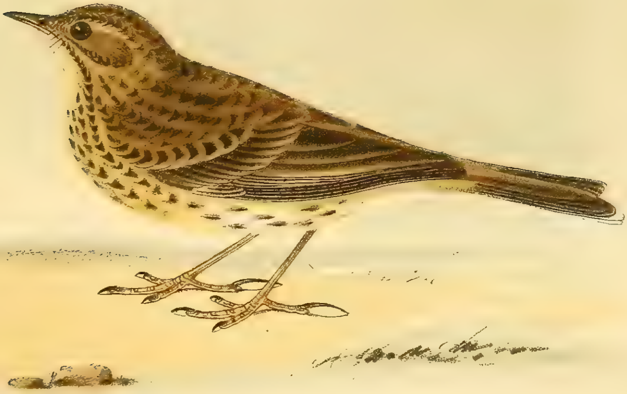
PLATE XCII.

MEADOW PIPIT.

ANTHUS PRATENSIS.

THIS pretty and lively species, which is one of the commonest of our English birds, appears to have a very wide distribution throughout the Old World. Temminck says of the Meadow Pipit (the *Pipit farlouse* of the third part of his *Manuel*), that it is very common in Holland, and that its range extends northward from that latitude, beyond the Arctic circle. According to the same author, this species is very abundant in Dalmatia, and in the island of Cicily, where it lives in large companies. It appears also very common in Japan, from whence specimens have been received exactly similar to those of Europe.

At a cursory view the appearance of this bird bears great resemblance to the preceding species, namely, in the tints and distribution of its colours, the form and character of its wings and tail, and in its general manners. The tints of its plumage are, however, at all seasons more olivaceous : its beak is more slender ; and the hinder claw, instead of being short and hooked, is very long and nearly straight. In the localities it frequents, also, great disparity of habits may be observed, for although this bird may be found in the cultivated and sylvan districts inhabited by the tree-pipit, it does



not restrict itself to such parts. On the contrary, the Meadow Pipit is widely and numerously distributed over the country, being found in all descriptions of meadow and grass land, in stubble, or in corn-fields; in fallow, as well as in cultivated districts. Waste grass lands in low and swampy districts, and widely extended upland downs, of a certain elevation, are equally its resort, preferring, however, the more low and sheltered parts in severe weather.

In its manners the Meadow Pipit bears much resemblance to the wagtails: like them, it runs quickly upon the ground, and when sitting perched, as is frequently its custom, upon a clod of earth, it moves its tail up and down continually.

The flight of this species is quick, and apparently pursued with great ease, its broad wings sustaining its light and slender form with great buoyancy. While on the wing it frequently utters a shrill *peep! peep!* from whence the name *Pipit* is probably derived.

The Meadow Pipit sings both when standing upon the ground, and on the wing; and it rises, like the tree-pipit, to a little height in the air, and descends singing: its voice is sweet and soft, but feeble. When caged, the male bird of this species sings very prettily, and always when standing or running upon the ground. He hurries over his short and gentle song with much rapidity, and as if unconscious himself of the act of singing: not like the wood-lark, who, although he also sings when on the ground, appears himself a pleased and attentive listener to his own sweet melody. The song of the Meadow Pipit, although pleasing, appears to admit of very little variety.

These birds in autumn associate much with larks, and with them frequent fallow and stubble fields, fields of turnips or of young wheat, and are sometimes caught by bird-catchers in their lark nets: they bear confinement well, and their manners are gentle and pleasing. They should be fed and treated in the same manner as larks, but require, in addition, water to bathe, and an occasional supply of insects; they like society, and are a pleasing acquisition in an aviary. They generally perch and roost upon the ground.

The Meadow Pipit, terrestrial in all its habits, is a ground building bird, and usually constructs its nest upon grass land, frequently upon heaths and moors, where bog-myrtle and cotton-grass abound. It is usually placed in a slight depression in the ground, or beside a sheltering clod of earth. The component materials of the nest are very simple, being little more than dry grasses or hay, intermixed sometimes with a very little moss, and lined with finer grasses and a few hairs: it resembles very closely the nest of the sky-lark. From its retired situation, being frequently placed in boggy ground, and from the inconspicuous nature of the materials, this nest is often difficult to find.

The eggs of this species, although varying much in colour, are generally uniform in size and shape, being about nine lines long, and six and a half in diameter. The most usual tint of the ground colour is reddish-white, more or less full; over the whole surface of which is distributed an irregular network of a deeper shade of the same colour. In some specimens the ground-colour is pale hair-brown, similarly marked with a darker shade. Other specimens are mottled and marked so fully with brown as perfectly to resemble the darkest specimens of the eggs of the rock-pipit: while others again are marked with brown upon a pale blue ground, like the one represented in the plate. This latter specimen bears so general a resemblance, in colour and markings, to some eggs of the pied-wagtail, that we should have referred it to that species, had not the parent bird, a Meadow Pipit, been taken upon the nest. This similarity of character in the appearance of their eggs shows how nearly allied are the pipits to the wagtails.

On a closer examination, however, of the eggs of the pied-wagtail and the Meadow Pipit, a characteristic difference may be observed; the wagtail's eggs are marked with many round dots, intermixed with the other markings, and these latter are never so numerous as to unite and produce the reticulated appearance usual in the Meadow Pipit's eggs. The Meadow are also distinguished from the tree pipit's by having a zone of crowded markings close around the larger end, which our specimens of the tree-pipit's do not possess. Among all the eggs of this species that have come under our observation hardly any two sets have been exactly alike in colour.

The solicitude of this little bird for its young is very great, and its attachment even to its eggs remarkable: we once met with a curious instance of the latter. A Meadow Pipit had chosen for its place of nidification a small hole or cavern beneath a tuft of heath, that had been cut and laid upon the grass with the roots upwards, for the purpose of being used as turf, a very common fuel in Surrey; we discovered the nest, which was not much concealed, and, being in want of specimens, took it: it contained two eggs. On passing the same spot the following day, we observed, with much surprise and some compunction, that the little bird was not to be driven either from the spot, or from her intentions of rearing her family there, even by our rough and cruel treatment, for she had laid another egg in the empty cave. This circumstance excited our interest in the affectionate and patient little creature, and we visited the place again in hopes of seeing her perseverance rewarded: but we found her misfortunes were still further accumulated, for a heavy horse's foot had been placed upon the spot, and had destroyed all traces both of the cavern and its contents.

The Meadow Pipit is a watchful little bird, and always on the alert; it is among the first of small birds to take alarm at the presence of a dog or gun, and when a shot is fired flies about wildly, uttering its soft *peep!* If a small bird falls, the Meadow Pipits immediately collect and hover about it, or stand erect upon the ground, watching with anxious interest. They are not so familiar as the wagtails, if we may judge from the circumstance of their never entering our garden, of which the lawn is only divided from the adjoining field, where they abound, by a low hedge; whilst wagtails, both white and yellow, continually pass the boundary, and run fearlessly up to the windows of the house.

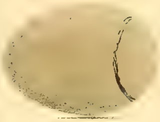
Although remaining all the year in this country, the Meadow Pipit retires from many of the temperate parts of the continent of Europe in autumn, to avoid the severities of winter; it does not appear to pass that season either in Holland or Germany.

This species moults in August, and it is by some naturalists considered that a second, or partial moult takes place in the spring; specimens having been observed in moult in March and April. Some difference of opinion seems to prevail with respect to the moulting of several of our small birds, and it is possible that, from some accidental loss of feathers, or peculiarity in the state of their health, individuals may be found moulting at irregular seasons. We lately, in the middle of February, met with an adult male pied-wagtail, which had upon the breast many new feathers still in the quills, which appeared to be black, with white fringes or tips, and some in the same state of forwardness were to be observed on the back and scapulars. The Meadow Pipit is believed to have two broods in the year; the first is ready to fly in April; the second in June. When alarmed for the safety of their young, the note of this species is *trit! trit!*

The entire length of this species is five inches and three-quarters. The wing measures, from the carpus to the tip, three inches one line; the first four quill-feathers are of equal length, and the longest of the tertials reaches to within a line and half of the extremity of them, when the wing is closed. The beak measures four and a half lines from the forehead; it is very slender, and distinctly notched. The tarsi measure ten lines, the middle toe and claw the same; the hinder toe measures five lines, the claw six, sometimes seven lines, making the whole expanse of the foot one inch, eight, or nine lines; the hinder claw is slightly arched, and very slender. The tail is forked; the central pair of feathers being somewhat shorter than the rest. The longest tail feathers measure two inches five lines, and the upper coverts conceal more than half their length.

The whole upper plumage of this species is dusky, broadly bordered with olive, and including the head and nape, the back, and scapulars; the upper-coverts of the tail are nearly plain olive-brown. All the feathers of the wing are dusky; the primary quills are very narrowly bordered with olive, and the outer one has a white edge; the secondaries, tertials, and coverts, more broadly bordered with the same. The two central feathers of the tail are dusky, lighter towards the edge; the four next on each side are of a darker tint, with narrow olive edges; the fourth has a small wedge-shaped white spot upon the inner web near the tip; the outermost feather has a larger wedge-shaped spot, and the outer web is pale brown, or dirty white. The under plumage, from the chin to the under coverts of the tail inclusive, is rufous-white, richest upon the breast and flanks. Each feather upon the breast has a round dusky spot along the shaft, the flanks are similarly marked with longer spots. A line of dusky spots commences at the base of the lower mandible, and extends down the side of the neck; another begins at the base of the upper mandible, and passes beneath the ear-coverts. The beak, which in this species is very thin and delicate, is dusky, except the base of the lower mandible and edges of the upper, which are rich ochre-yellow ; the legs and feet are of the same ochre-yellow, the claws and joints dusky. This is the autumnal plumage after the general moult. By degrees the olive tinge wears away, and the plumage inclines more to pale brown, sometimes approaching to ash upon the borders of the scapulars, wing-coverts, and tertials ; and the under parts have less of the yellow tinge in spring than in autumn.

In Plate 92 is represented the Meadow Pipit in autumnal plumage, from a specimen shot in September, and the same figure points out the egg of this species.



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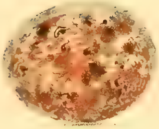

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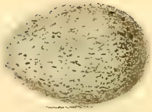

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Pl. 23

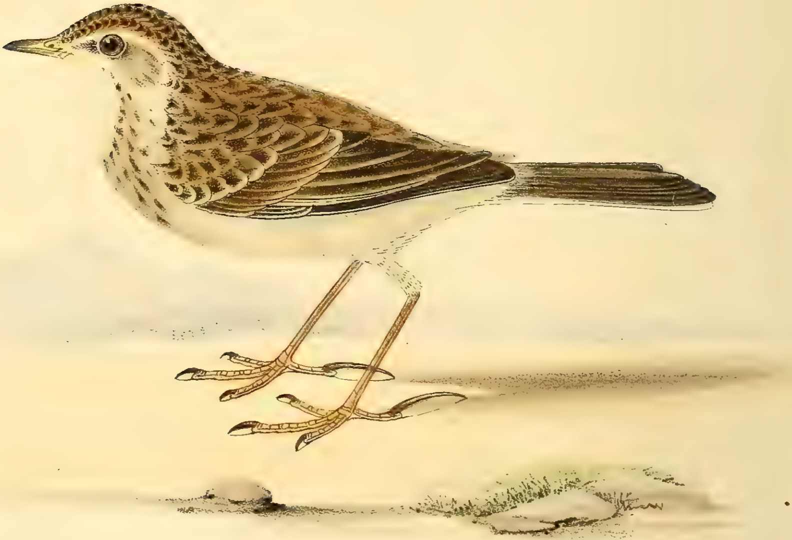


PLATE XCIII.

RICHARD'S PIPIT.

ANTHUS RICARDI.

In describing a bird so rare in England as the Pipit at present under consideration, we must refer for its native locality, habits, manners, and all other particulars, to the works of continental authors, as containing nearly all that can be brought forward on the subject. In the first part of the *Manuel* of M. Temminck, that gentleman says, "It appears that this Pipit is an inhabitant of the warmer countries of Europe, since it is found towards the Pyrenees, and, probably, in Spain." In the third part of his *Manuel*, subsequently published, Temminck confirms the supposition of this species inhabiting Spain, and adds, that it inhabits also the south of France and Germany, and has been killed in Picardy in the month of October; and that it is tolerably common in Austria in the environs of Vienna.

The whole extent of the south of Europe appears, therefore, to be inhabited, more or less abundantly, by this species; and, in addition to the localities above quoted, we find mention made of this bird as an inhabitant of the island of Crete in the Mediterranean.

In this country, the Richard's Pipit can only be considered as a scarce straggler, of which, until lately, not more than half a dozen specimens were recorded to have been captured. The recent and still increasing researches in ornithology, have lately made known the occurrence of several more individuals. A note on the occurrence of rare birds in the vicinity of Yarmouth, by W. R. Fisher, Esq., which appeared in the sixth number of the Zoologist, records the following particulars on this subject:—A specimen of Richard's Pipit was shot there, November the 22nd, 1841; another example in the following April; and that a third specimen had been shot on the Denes, between Yarmouth and Caistor. The latter was shot by the same person who had killed a former specimen, and who recognised its peculiar manner of walking and feeding. These specimens varied considerably in size. One measured seven inches and a quarter; another was seven inches five-eighths in length, and twelve inches in the expanse of its wings. The lower mandible of the beak, when first observed, had a purplish tinge, which afterwards changed to a dull red. Upon dissection, this bird was found to be a male: the gizzard was filled with several species of flies and gnats, amongst which were noticed the remains of the ladybird, and of a species of ichneumon.

In addition to the specimens just mentioned we may add, that four of these birds have lately been shot in Cornwall, two near Penzance, and two near Marazion, by Mr. Vingoe. This gentleman saw one perching upon a small rail, and observed their actions and note to be similar to the other species of Pipit, or a little approaching to those of the wagtails.

We are glad to have an opportunity of giving the measurements of one of Mr. Vingoe's birds (communicated to the Zoologist by A. Greenwood, Esq., of Penzance,) from a fresh specimen; it is as follows: "Entire length, eight inches; from the carpal joint to the end of the wing, three inches eleven lines; length of the tarsus, one inch two lines and three quarters; length of the bill from the centre of the nostril, five and a half lines; hinder toe, six and a half lines; hinder claw, nine lines." These particulars correspond very exactly with a specimen in the Museum of the Zoological Society, which we examined some years ago, and from which we can subjoin that the middle toe and claw measure one inch three lines, and that the whole expanse of the foot is not less than two inches and a half. The beak, in this species, is more like that of a lark than of a Pipit, being thick and blunt, and nearly as stout and large as that of a skylark. The wings are rather short for the size of the bird, and the tail extends nearly two inches beyond their extremities. The tail feathers are nearly of equal length, the central ones being but little shorter than the rest. The longest tertial feather is about two lines shorter than the quills; the first quill-feather is the longest, the three next decrease in length successively in a trifling degree.

The following is the description of an adult male:—All the upper plumage brown, each feather tinged at the edge with rust-colour; the cheeks are reddish-brown; a whitish streak extends over the eye, and passes above the ear-coverts; two dark lines take their rise from the base of the beak; one of these passes to the ear-coverts, the other, composed of a series of small spots, joins and loses itself among the spots with which the breast is overspread. The throat, sides of the neck, and rest of the under parts, are dull white, tinged with rufous upon the flanks and under-coverts of the tail. Upon the breast, is a gorget of dark-brown oblong spots; the throat is plain white, without spots, and in some specimens the breast is strongly tinged with rusty brown. The quill-feathers of the tail are dark brown, with the exception of two on each side, which are partly white, that colour occupying a portion of each feather in a slanting direction, the white part being visible when the tail is spread; the shaft of the outermost feather is white, that of the second black on a white ground. The quill-feathers and coverts of the wings are dark brown, bordered with rust-colour. The legs are brownish flesh-colour; the iris dusky.

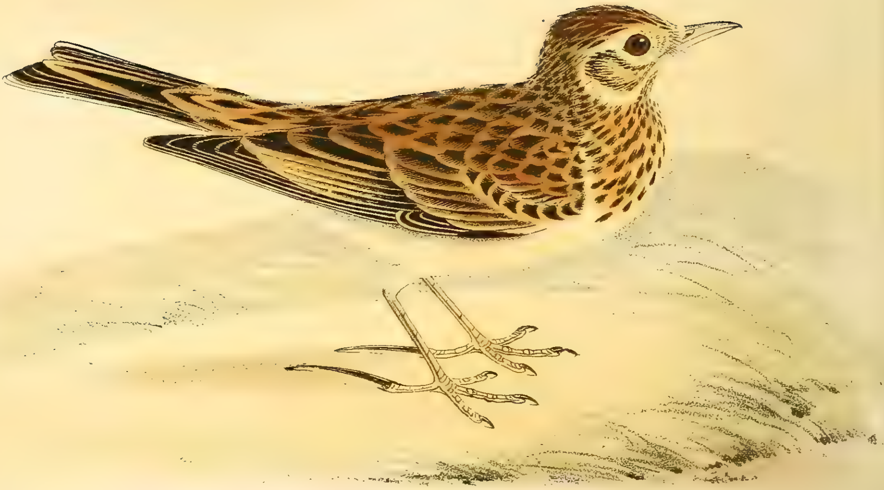
This bird is supposed to undergo the same periodical changes in the tints of the plumage common to the other Pipits, namely, in being tinged with olive on the upper plumage after the autumnal moult.

The female has less of the rufous tinge upon the under plumage than the male.

Richard's Pipit is said by Mr. Drummond, who observed its habits in the island of Crete, to inhabit dry rocky places. According to that gentleman, this Pipit breeds in the island in situations of a similar character.

This species is entirely a ground bird, it both resides and seeks its food upon the ground, being seldom seen to perch. Its note is loud, according to Temminck, and frequently uttered by the bird when upon the wing.

Pl. 94.



INSESSORES.
CONIROSTRES.

ALAUDIDÆ.

PLATE XCIV.

SKYLARK.

ALAUDA ARVENSIS.

WITH the Larks commences the tribe of birds known under the title of *Conirostres.* This tribe comprises about one fourth of the land birds of Britain, and comprehends among its members some of the most numerous species that inhabit these islands; many of which, by the familiarity of their manners, are best known to us; and which, being for the most part stationary in these latitudes, enliven us at all seasons either by their songs or by their presence.

At the head of this large family stand the singing birds of the division, some of which rival even the warblers in the beauty of their notes. Such are the Larks, the Goldfinch, the Linnet, and the Siskin. In this extensive tribe are included also many species widely differing in habits, manners, and appearance, from those just mentioned, which, although having no pretensions to song, yet enliven by their various voices a lonely scene. Among these may be mentioned the busy Jackdaw, the noisy Jay, and, eminently, the Rook, whose cheerful cawing imparts an air of liveliness to the environs of many a grey and venerable mansion, or adds an additional charm to the skirts of many a distant and secluded village. But we must pass on to our more immediate subject.

> "Up springs the lark,
> Shrill-voiced and loud, the messenger of morn:
> Ere yet the shadows fly he, mounted, sings
> Amid the dawning clouds, and from their haunts
> Calls up the tuneful nations."

These few lines of the poet, full of freshness and truth, convey more forcibly to the mind the character of the Skylark than as many pages of dull prose could do, and fitly serve as a preface to its history. The Lark may be considered the herald of the year as well as of the morning, as he is one of the first of animated beings to observe and welcome the return of spring. The first mild and balmy morning that intervenes between the dull and cheerless days of that early season, the song of the Skylark may be heard as he rises into the air, rejoicing in the welcome change. At first his flights are low, and of short duration, and his song wants the full and mellow richness that distinguishes it at a later period: but, as the spring advances, his flights are oftener and oftener repeated, and his full voice swells as if with unbounded joy. While singing, the Skylark rises to a surprising elevation, often higher than the eye can follow him, although his clear voice may be still distinctly heard. We are not prepared to affirm to what height above the earth these flights are pursued, but we think they must frequently be considerably above a thousand feet; yet, such is the extraordinary power of the lungs of this species, that their song continues unabated from the moment of rising until their feet again touch the ground, a period often of eight or nine minutes. It is observable that the Skylark, while rising in the air, always has his face directed towards the quarter from whence the wind blows. His descent is usually performed quicker than his ascending flight; and when he again comes low enough to be distinctly seen, his wings are closed to assist his downward motion, and he drops rapidly to the earth. In February, these birds are seen flying in pairs, after having all the autumn and winter congregated in flocks: they are not, however, early breeders. In their habits larks are terrestrial,—running, feeding, building, and roosting upon the ground. They are very lively in all their motions, and when feeding upon the ground they run with a quick and graceful step, frequently stopping and erecting their bodies, as if to listen or to look around, raising at the same time their conspicuous crest. These birds are inveterate dusters, or pulverisers, and we have also sometimes seen them wash with much enjoyment, wading into shallow water for that purpose. Besides grain and seeds, Skylarks also eat insects of various sorts, for which they search assiduously upon grass-fields and lawns, and after a heavy shower may be seen running into the little pools formed by the rain, in chase probably of insects that have been driven from their hiding places.

Skylarks begin to breed in May, and the localities chosen are generally corn, clover, or grass-fields, &c. The nest is usually placed in the open field, unsheltered by bushes or hedges. It is constructed upon the surface of the ground, and composed of dry grasses in considerable quantity, forming a thick and comfortable mattress, and lined with finer portions of the same material; the nest is constructed, however, of fragments so short, that it cannot be moved from its situation entire. The eggs are mostly four in number, and usually placed in the nest with their smaller ends towards the centre.

The Skylark is not easily driven from her nest; and when she is, through fear, compelled to desert it, she hovers about in such anxious distress as frequently to betray its hiding-place, although for the most part it is tolerably well concealed by the surrounding blades of grass or herbage. Sometimes, however, the nest of this species is found in much less hidden situations, and we have seen it in the rut of an unfrequented cart-road, &c. The eggs vary in size from ten lines to an inch in length, and are from seven to eight lines in diameter: they are in the ground colour greenish or greyish-white, mottled all over with ash-grey and brown or olive: these colours vary but little in tint in different specimens, but in some the spots are equally distributed over the surface, in others grouped in knots, having the appearance of being curdled. The young Larks, when a few weeks old, are pretty, intelligent little creatures; they resemble their parents generally in their colours, but have each feather of the upper plumage tipped with yellowish-white; the males may be distinguished by having the most yellow upon the breast.

Larks, as before observed, are indefatigable in attention to their young, and even when captured with their nestlings have been known to bring them up. We have ourselves met with an instance of this kind; a female Skylark was taken prisoner with her four young ones when they were tolerably well feathered; they were placed in a cage together, and supplied with the food commonly known as German paste. Hardly were these arrangements completed, than the parent bird commenced feeding the nestlings, while they stood begging around her, shivering their little wings and opening their ready beaks; and so intent was she upon these maternal cares, that she appeared unconscious of the change in her own situation, as well as of the strange persons and things that surrounded her.

The Skylark is common and well known in most parts of the kingdom. It frequents, in the spring, meadows, commons, and extended grassy tracts of various descriptions, also fields of clover and young wheat: in autumn and winter, these birds are seen in vast flocks, at that time augmented by flights from the northern parts of the European continent, in stubble-fields, and especially in the vicinity of farms, where they pick up a rich supply of grain and seeds.

The geographical distribution of the Skylark is very extended, this species being found throughout the continent of Europe as far as Siberia; in Asia; and in the northern parts of Africa; but, according to Temminck, it does not inhabit the warmest parts of that quarter of the globe. Throughout these widely extended regions, the Skylark is more or less migratory, according to the latitude. It inhabits the most northern parts only in summer, retiring southward in autumn. This migratory movement takes place as far south as the Orkney and Shetland islands, where these birds are still only summer-visitors; and it appears that even Scotland is partially deserted in severe weather, when large flocks leave that latitude, and wing their flight further south. Throughout England, a great addition is observable in autumn to the number of our native Larks, so that in some counties they are taken in vast numbers in nets for the table. The arrival of these birds has been noticed on the eastern coasts of Britain at this period, to occur in flocks from ten to fifty in number, during several days in succession: and, in unusually severe weather, they appear to pursue their course still further, and to seek the warmest portions of Britain for refuge and subsistence, having been observed in the south of Devonshire in the winter of 1803, in all the stubble-fields, in unprecedented numbers.

As before mentioned, the Skylark penetrates in summer far towards the north, and at this time it entirely forsakes some of its winter quarters. In Corfu, we learn from Mr. Drummond, this bird is only a winter resident, arriving there the latter part of September, and passing northward again in February; but this species is not included in Mr. Drummond's list of the birds that inhabit or frequent the island of Crete in the Mediterranean: nor does Temminck make any mention of the genus *Alauda* in his list of the birds of Japan: it is found, however, as far towards the east as the western borders of the Black Sea.

The entire length of the Skylark is seven inches and three quarters. The wing, from the carpus to the tip, measures four inches four lines: the first quill-feather is so short as to be easily overlooked, as it measures not more than three lines; the second is nearly as long as the third and fourth, which are the longest in the wing. The outer tail-feathers measure two inches eleven lines, and extend an inch and a quarter beyond the closed wings. All the feathers of the tail and wings are very broad, and the entire body of the bird is covered with a great number of close-set feathers, which, being mostly darkest down the shaft, give the plumage a tessellated appearance. The tail is forked, and the central pair of feathers two or three lines shorter than the outer. The tarsus measures eleven lines, the middle toe ten, and the hinder toe and claw one inch one line, of which the claw occupies nine lines: the entire expanse of the foot is one inch ten lines.

The upper plumage of the Skylark consists of several shades of brown, the darkest occupying the shafts of the feathers, and the lightest, which in some parts approach to greyish-white, being disposed upon the edges. The wing-feathers are of the same colours; the tertials are bordered with rufous-brown; the secondaries tipped with white, which forms a fringe to that part of the wing, very conspicuous in flight. The ear-coverts are rich yellowish-brown, streaked along the shaft with a darker shade; the chin, and the collar that passes beneath the ear-coverts, are plain yellowish-white; the rest of the breast rufous-yellow, with rich brown triangular marks upon the shafts of the feathers; the flanks are of the same rufous-yellow, with brown shaft-streaks; the middle of the belly and under-coverts of the tail white, tinged with rust. The under-surface of the quills brownish-grey, glossed with copper along the edges. The beak is dusky horn-colour, the base of the lower mandible pale brown. The legs are rich orange-brown, with dusky joints and claws. The two central tail-feathers are of the same colour as the back and tertials, the three next on each side dusky, edged paler; the outer feather but one is dusky on the inner web, the outer web white: the outermost feather is half white and half brown, divided transversely, the white portion being visible when the tail is spread in flight. This is the adult plumage in spring.

The female is rather smaller than the male: the spots on her breast are more distinct, and on a paler ground.

The egg of the Skylark is figured 94.

PLATE XCV.

WOODLARK.

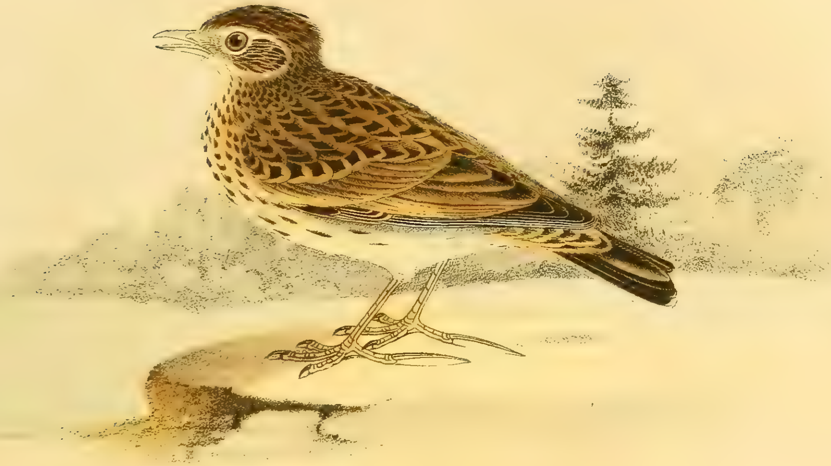
Alauda arborea.

The Woodlark is a less common bird than its generic companion the skylark, and by no means so generally diffused. In some districts it is scarcely known, while in others it is tolerably abundant. We have found it most frequently in districts of a hilly character, varied with pasture, woodlands, and cornfields ; but it appears not so partial to widely-extended level tracts of cultivated country, as the skylark. In Surrey, and some other counties of similar character, this species is very abundant ; even upon the level plains on the borders of the Thames ; but the soil of these localities is for the most part covered with herbage, and hills clothed with trees in profusion are not far distant.

The Woodlark is chiefly confined in England to the southern counties, or, properly speaking, is more abundant in them, although it is met with in the midland counties in some parts, and much more rarely in the northern. In Shetland this species is hardly known. In the northern countries of Europe, namely, Denmark, parts of Sweden, and Russia, it is a summer-visitor only, but resides all the year in the countries along the Mediterranean, and also in Germany and Holland.

In Crete these birds are abundant, and the sketch given

67.



by Mr. Drummond respecting them coincides with our own opinion, that they are hill-country birds; for he says they were observed on the mountains, where they also breed, and that none were seen lower down. We conclude they pass the winter as well as the summer in that island. In Corfu the Woodlark arrives in September in small flocks, which remain during the winter, but they retire to the high mountains of Albania in the spring.

The nest of the Woodlark is more carefully concealed than that of the skylark, and as this species breeds very early, it is comparatively rare to meet with its eggs. Much more variety appears to prevail in the colour of these eggs than in those of the preceding species, although in some of their varieties they are nearly similar: the Woodlark's eggs are smaller in size, not exceeding eleven lines, by seven and a half in diameter, as well as shorter in proportion, and generally the spots are larger, and more grouped in knots. In some specimens of this species the ground colour is reddish-white, freckled with ash-grey and tile-red; others are still fuller in tint, with some of their spots crimson or maroon, intermixed with brown; but we are disposed to think that the greater part resemble those of the skylark so nearly, as generally to pass for the eggs of that species.

The nest of the Woodlark is composed of fine dry grasses, with a little moss sometimes in the foundation, and lined with finer grass stems; it is placed upon the ground near trees, woods, or hedgerows, sometimes sheltered by a bush, tuft of grass, or clod of earth; we have also found it at the foot of a large elm, partly concealed by long grass, and by the tufted foliage of a low bush.

The Woodlark sings upon the wing; but in its song and flight may usually be distinguished from the skylark. It does not rise in so perpendicular a manner as that species, but continues wheeling round in wide circles as it mounts, and, according to Bechstein, it continues in the air hours at a time. In descending, this species still performs its flight in circles, and often with motionless and expanded wings; and when it again reaches the earth it runs a few steps, still warbling its concluding notes. The song of the Woodlark is considered to surpass that of the preceding species in sweetness and melody, although in variety and power the skylark has the preference.

Larks chiefly feed in autumn and winter upon grain, and seeds of various sorts; in spring and summer, insects form a great part of their subsistence, varied with the young green leaves of various plants. In captivity this species may be fed upon bread and milk, meat chopped very fine, ants' eggs, and other insects, with the addition of blades of young wheat, oats, hemp and poppy seed; but the most convenient food as a daily dish is German paste, of which most small birds are fond. The Woodlark in confinement is a sociable and interesting bird, and soon becomes attached. If placed in a large cage where it has plenty of choice of situation, it will generally be observed to sit on the side nearest to its human associates. Thus placed, and apparently watching calmly the occupations of the persons in the room, this lark sits and sings its sweet, unobtrusive song in quiet enjoyment.

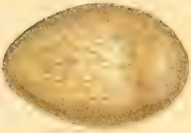
In a cage this bird usually perches; we have had several which all preferred, and constantly kept possession of a wooden partition, raised a few inches from the floor of the cage, which appeared to afford a comfortable and flat resting-place for the sole of the foot; they slept also in the same spot, or upon a perch; when sleeping the legs are much bent, or compressed under them. Skylarks also, which sleep upon the ground, bend or compress their legs in the same manner, so that the body rests upon the feet. So sociable is the caged Woodlark that when spoken to it invariably answers with a few low liquid notes.

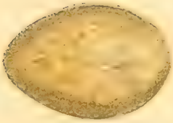
The entire length of the Woodlark is nearly seven inches. The wing measures from the carpus to the extremity of the quill-feathers four inches; the first quill-feather measures three lines, the second is nearly equal to the third and fourth, which are the longest in the wing. The tail-feathers are two inches and a half in length, and extend eleven lines beyond the tips of the folded wings; these feathers are rather more pointed than in the skylark, and the upper tail-coverts longer in proportion. The tarsi measure ten and a half lines, and the entire expanse of the foot rather exceeds one inch and three-quarters.

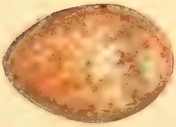
A description of the feathering of the Woodlark would be little more than a repetition of that of the skylark, it is therefore thought more advisable to mention in what slight particulars the two species differ. One distinguishing character is the light brown eye-streak which distinctly separates the top of the head, or cap, from the ear-coverts; the throat is white, and the spots upon the breast more rich and full; and on the nape of the neck, and centre of the back, some of the feathers have a lighter edge. The wings are the same as in the skylark, except the white tips of the secondary quills, which are much less broad and distinct. On the tail-feathers there is also less white in the Woodlark, that colour *bordering* only the second feather, instead of occupying, as in the skylark, the entire outer web. The rest of the plumage, and the colours of the legs, feet, and beak, are the same. In caged specimens the legs and feet of larks lose the rich tint they possess when wild, and become pale flesh-colour, sometimes white. The male and female differ but little in plumage, but the male has in spring a richer rufous brown upon the breast. The beak in this species is a little shorter and smaller than in the skylark.

When alive, these two species differ more in manners than in form. The Woodlark walks upon the ground with a slow and quiet step, and keeps its body in a more perpendicular position; it is also a stouter made bird, with a flatter head, and longer crest. The skylark runs in a more lively manner, then stops and stands erect, elevating his crest to an angle of forty-five; and when he flies up, the white portions of his wings and tail are much more conspicuous.

The eggs figured 95, and 95 var. are those of the Woodlark.







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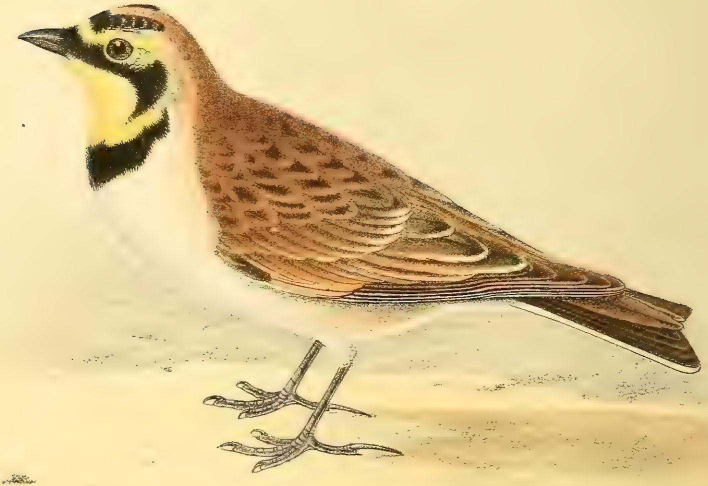


INSESSORES.
CONIROSTRES.

ALAUDIDÆ.

PLATE XCVI.

SHORE-LARK.

Alauda alpestris.

We have traced the sky and woodlarks through the regions respectively inhabited by them, and have observed that the former penetrates much further north than the latter, the skylark permanently residing in some countries which the woodlark only reaches as a summer-visitor. The third species of Lark, still remaining to be described, passes still higher in its polar migration, and enlivens by its cheerful song the barren and desolate regions that border upon the Arctic Seas.

This species is found in some of the northern districts of Europe, and Asia; but especially in North America, in which country it appears to be the most abundant; we must look, consequently, to naturalists of that quarter of the globe for such details of its history, as the frequency of its appearance there enables them to become more fully acquainted with.

By Audubon this species has been found to inhabit, in summer, all the country of Labrador, but especially the coast, where it arrives about June from the southern provinces. Upon the rocky and barren coasts of this desolate country it rears its young, placing its nest upon the ground among the mosses and lichens with which its stony surface is covered.

In these unfrequented regions the birds show little fear, and the female retains her place upon her nest until very nearly approached, either confident in its close resemblance to the surrounding surface of the ground, or fearless in the protection of her treasure ; if, however, too nearly approached, she rises from the spot, and with well-feigned lameness, or real agony of alarm, attempts to withdraw the attention of the intruder from her unprotected offspring. At this period the song of the Shore-lark is in its full perfection ; the manner of its delivery much resembles others of its genus, the bird rising on the wing to the height of about forty yards in an oblique direction, singing as it flies. After the young birds are hatched, little more is heard of the song of the parents, which is exchanged for the soft chirping notes of tenderness and solicitude. The young birds soon stray from the nest, even before they can fly, and are assiduously attended by the parents ; they run nimbly upon the moss-covered rocks, uttering a soft call-note, and on the appearance of danger conceal themselves by sitting close to the ground. The young birds, which are hatched about the middle of July, are in the beginning of August fully fledged, and begin with their parents to associate in flocks. In September they leave the country of their birth and travel southward for the winter ; their migration is performed in small straggling flocks. On leaving Labrador and the coasts of Hudson's Bay, they spread over various parts of the United States, from Maine as far south as Georgia. In the central and southern portions of this vast continent the Shore-lark passes the winter season, to recommence in spring its migration northward. In May it is again seen, according to Dr. Richardson, on the shores of Hudson's Bay ; it proceeds, says that gentleman, to the marshy and woody eastern districts to breed, extending its range to the shores of the Arctic Sea. Captain Ross also found solitary individuals of this species near Felix Harbour, but considers that it is rarely met with above the seventieth degree of north latitude.

The nest of the Shore-lark is described by Audubon as being constructed of fine grasses, circularly disposed, forming a bed about two inches thick, with a lining of grouse feathers. The eggs, four or five in number, are greyish in colour, and covered with numerous pale blue and brown spots.

In Europe the range of this species does not extend so far to the south as on the American Continent, probably on account of the greater mildness of the air on the eastern than on the western shores of the Atlantic. In England the appearance of the Shore-lark has been confined to a very few individuals, and it seems to be generally as scarce in similar latitudes on the Continent of Europe. Temminck, however, speaking of this species, says it is found in Holland, where in winter it approaches the villages; that it is common in Saxony; in the plains of the valley of the Rhine, and in the environs of Nancy. The same author, in the third volume of his *Manuel*, from which we quote the above information, asserts that it breeds in Holland on the downs that line the sea-shore.

This Lark appears, like its congeners, to be entirely terrestrial in its habits, which may also be inferred from the straightness of its hinder claws; the localities chiefly frequented by it are barren, wild, and open. Its food consists partly of insects, and partly of the seeds and buds of various plants and grasses.

The entire length of this species is six and a half inches. The beak measures to the forehead four lines and a half, and six lines to the corner of the gape. The tarsi measure nine lines; the middle toe eight lines; the hinder toe and claw eight lines, four of which belong to the claw, which is nearly straight. The wing measures four inches from the carpus to the tip, and the forked tail extends nine lines beyond the tips of the wings. The wing has the first, second, and third feathers of nearly equal length, the second feather rather the longest.

The plumage of the adult male is as follows: The forehead and eyestreak are sulphur-yellow; above which a band of stiff black feathers extends across the forehead, from each side of which springs a horn, or tuft of long, narrow, and pointed feathers, capable of erection, which form a striking and distinguishing character. Another black band passes from the base of the beak to the eye, and spreads over the lower part of the ear-coverts; the chin and sides of the neck are sulphur-yellow, below which a narrow black crescent crosses the breast, dividing it from the under part of the body, which is white. The crown of the head and nape, the back and scapulars, are greyish-brown, tinged with Indian red, the two latter strongly dyed with vinaceous purple, and having a dark streak along the shafts of the feathers. The primary quills are dusky, edged with white; the secondaries, tertials, and greater coverts brown; the tertials and covert feathers nearest to the body edged with white, the rest deeply bordered with ferruginous brown; the lower part of the back is ferruginous brown; the two middle feathers of the tail umber-brown, darkest along the shaft, the rest are dusky, the outer feather edged with white. The under parts of the body are dull white, tinged with ferruginous brown upon the flanks. The beak is bluish-black, the nostrils covered by black bristling feathers directed forwards. The legs and feet are black, the iris hazel.

The female is a little less in size, and less bright in colouring; the yellow on the head is paler, the black marks smaller, duller, and intermixed with brown; the upper parts are more grey, with darker shaft streaks, and the red tinge is hardly perceptible.

After the autumnal moult the forehead of the Shore-lark is greenish ash: the black bands about the head are much obscured by the yellow edges of the feathers. The feathers of the back are edged more deeply with reddish-grey: the pale edges of the wing-feathers are broader, and the white tips of the coverts broader and more distinct.

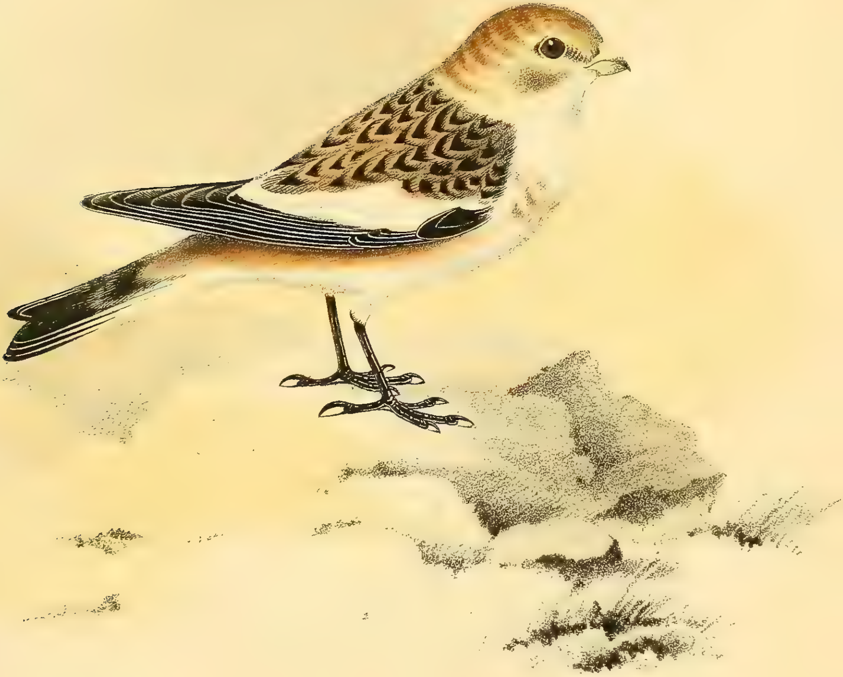
PLATE XCVII.

SNOW BUNTING.

Plectrophanes nivalis.

In close alliance with the Larks stand the Buntings, especially those species that are distinguished by the straightness of the hinder claw; namely, the Snow and Lapland Buntings. These have, in consequence of characters and habits peculiar to them, been separated by Meyer from the rest of the bunting family, and placed in the genus Plectrophanes of that author. Besides the slight elongation and straightness of the hinder claw, these species possess other characters assimilating them especially with the larks; their habits are terrestrial, and as they walk upon the ground they move their feet alternately. These two species are usually found to frequent open, exposed, and rocky situations; they perch, roost, and breed upon the ground, and both are in summer chiefly confined to high northern latitudes. In common with the true Buntings, these birds feed upon grain, the seeds of various plants, and insects. All the Buntings known in this country have but one general moult; but the difference between the young and old, and the male and female, and also the gradual changes that annually take place in the adult, by the wearing away of the edges of the feathers, cause a great disparity of appearance among different individuals.

The Snow Bunting is one of the hardiest of European



birds, residing in summer within the Arctic circle, in the coldest regions of the northern hemisphere, and extending its migration as far towards the pole as any European traveller has at present penetrated. It is found in summer in the most northern parts of Sweden and Lapland, in Spitzbergen, Nova Zembla, Iceland, and other islands; and in the countries of Asia that border upon the icy sea; also in the most northern parts of America, as Greenland, &c. On the approach of winter this species migrates southward, and inundates various countries with its numberless flocks—such as central Siberia, Russia, and the south of Sweden; also the southern part of Norway and its numerous islands. In North America it descends in winter to the regions about Hudson's Bay and Canada, and if the season is very severe passes still lower. The coasts of Germany and Holland, of Scotland and England, are also visited annually by flocks of these birds.

In the northern regions frequented by the Snow Buntings in summer, they are observed to inhabit very elevated spots; by Linnæus they are said to have been seen two thousand feet above the line of perpetual snow upon the Lapland Alps. In Scotland the same partiality for mountainous situations is observable, this species being frequently seen in winter, unless the weather is remarkably severe, fifteen hundred or two thousand feet above the level of the sea. In very severe weather only, when the hills are deeply covered with snow, is it driven to descend lower; and even then it mostly seeks only the valleys that lie sheltered among the hills; occasionally, however, retreating to the sea-shore.

The most southerly of the breeding-stations of this species that has been recorded, according to Dr. Richardson, is Southampton Island, in the 62nd parallel. But, although the fact has not at present been ascertained, there seems every reason to believe that the Snow Bunting breeds upon some of the lofty and lonely mountains of Scotland. In support of this opinion we may quote several instances of its being seen in various parts of Scotland during the summer. Mr. Macgillivray says, "On the 4th of August, 1830, being on the summit of Ben-na-muic-dui, the highest mountain in Scotland, I observed a beautiful male flitting about in the neighbourhood of a great patch of snow. Some days after, having descended from the top of Lochnagar, to its corry, I met with a flock of eight individuals, flying about among the blocks of granite. They were evidently a family, the male and female being easily distinguished from the young. It is therefore very probable that the Snow-flake breeds on the higher Grampians, and perhaps in considerable numbers, although it is not likely that the vast flocks seen in the lower grounds in winter are exclusively of Scottish origin." Other observers have likewise noticed these birds in Scotland during the summer; but they do not appear to penetrate into England until later in the season. Selby says "they generally arrive in the upland and mountainous districts about the middle or latter part of October in large flocks. As the severity of winter increases, they leave the heaths, where they have fed upon the seeds of various grasses, and, descending to the lower grounds, frequent the oat-stubbles; and if the snow lies deep, they approach the coasts, where the influence of the sea breeze soon exposes a sufficient breadth of ground to afford them subsistence."

In Shetland these birds are considered to be only winter migrants. According to Mr. Edmonston they are usually seen about the beginning of November, and continue there in straggling flocks until the beginning of May. It is probable that Scotland presents greater facilities and enticements to the Snow Bunting to breed there, than any other country on the southern side of the Arctic circle; the coldness of its climate, the desolate scenery in the wildest parts, and its lofty mountains, capped with perpetual snow, representing not very remotely the Arctic regions, in which these birds chiefly delight.

Few and straggling flocks of the Snow Bunting penetrate still further into England, and are seen in winter sparingly in the eastern counties. The severe spring of 1830 brought numbers as far south as Surrey ; and they have also been observed in most of the counties that extend along the southern coast.

The nest of this species is built upon the ground, composed of grass-stalks, and lined with the hair of animals, and a few feathers ; it is partially sheltered by being placed usually among loose stones, rocks, or drift timber. The eggs are bluish-white, with a zone of lavender and dusky spots round the larger end. They are roundish and blunt in form, but have no other resemblance in general to those of the Emberiza family.

The entire length of this species is six inches and three-quarters. The wing measures from the carpus to the tip four inches four lines ; and the first quill-feather is the longest in the wing. The beak measures four lines to the forehead ; the tarsi are ten lines in length ; the expanse of the foot an inch and a half.

The male in perfect summer-plumage, in which it is emphatically styled the *Snow Bunting*, is black and white, disposed as follows ; the head, neck, coverts of the wings, lower part of the back, and all the under parts pure white ; the back and scapulars are black, also the bastard wings ; the quills are black, edged with white ; the three external feathers of the tail are white, with a portion of black towards the tip, the rest black, with a border of white along the outer web. The iris is chestnut brown ; the beak black at the tip, yellow at the base ; the legs and feet black. This is also the plumage of the female in summer.

After the autumn moult the male has the top of the head, nape, and ear-coverts, deeply tinged with brownish-red; the feathers of the back and scapulars broadly fringed with reddish-ash; the breast, rump, and upper tail-coverts are more or less tinged with brownish-red; the rest of the under parts white. This plumage is also common to the female; and in the feathering of this period they represent the *Tawny Bunting* of authors.

Young birds of the year have still more of the tawny appearance than the adult, and the white of the under parts of the body is slightly tinged with ash.

The egg of the Snow Bunting is represented in figure 97.

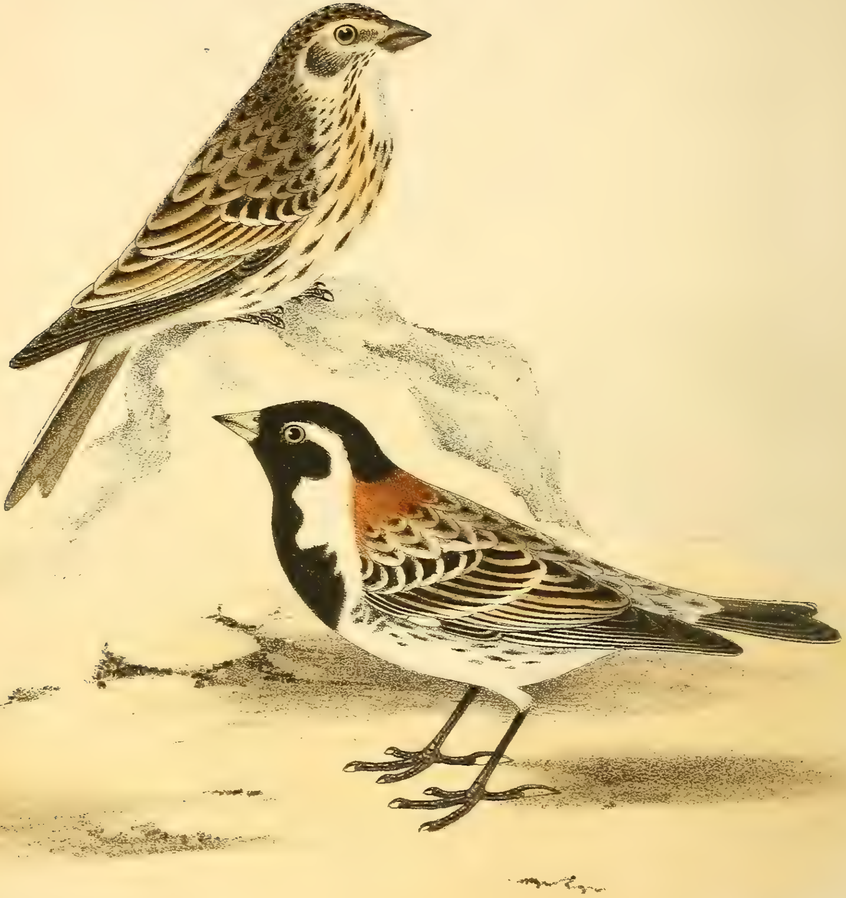


PLATE XCVIII.

LAPLAND BUNTING.

PLECTROPHANES LAPPONICA.

THIS species, although usually known as the Lapland Bunting, is by no means confined to that country, nor does it appear to be more common there than elsewhere; on the contrary, it is said to be far more abundant in the north-eastern parts of Russia, in Siberia, and the north of Asia generally, than in any other part of the world. The summer habitation of this species, besides the countries mentioned, includes other localities within the limits of the Polar circle; it is found in Iceland, and more sparingly in the north of Sweden; in Spitzbergen, and the Ferro Islands; and inhabits Greenland, and some other of the colder portions of North America. In autumn this species retires from within the Polar circle, and descends to more habitable regions, frequenting in winter various parts of the east of European Russia, the Ural mountains, and probably the vast extent of country that stretches thence eastward to the Pacific Ocean. Its habitation at this desolate period in America, is on the borders of Hudson's Bay, and in the vicinity of the lakes of Canada.

In Siberia, and on the Ural chain, the Lapland Bunting is said to be met with in flocks, but in more temperate regions it is seldom seen in numbers, although a few are annually observed in Germany, Prussia, and Poland, especially in Silesia, on the Reisengebirge, or Giant Mountains; and they have occasionally been seen in Switzerland. In the temperate parts of Europe these birds make their appearance about October, and disappear in February or March.

In England the appearance of specimens of this species has occurred very rarely, and these individuals have all been in immature plumage. A capture was recently made of a living individual of this species, interesting from its rarity, which is mentioned in the tenth number of the Zoologist as having occurred in the neighbourhood of Kendal. This bird was taken by a bird-catcher in a trap, after a whole day's persevering watchfulness, as it was very wary and difficult to approach. It is at present in the possession of H. L. Haslam, Esq. who describes it as very lively in its manners, and sociable with its feathered companions. It is supposed to be a female, as it exhibits the sombre plumage usually assigned to that sex. The circumstance which appears the most remarkable in the account of this specimen is, that it was captured in the end of June, or beginning of July, a period at which all of this species are supposed to be within or very near the Arctic circle, according to popular report.

The Lapland Bunting appears to inhabit by preference hilly and mountainous localities, where the country is wild and desolate, and destitute of trees, and whose only production is stunted shrubs. This species is always seen upon the ground, where it runs in the manner of the larks, holding its body in an inclined, or horizontal position; it is slow to take wing when pursued, and runs for shelter among clods or stones. In its flight, when roused, it is quick and buoyant; but if a bird of prey appears it alights and crouches close to the ground. These birds associate with the shore-larks, and appear to resemble them much in their habits. Their call-note resembles somewhat that of the snow bunting, but is shriller, and not so strong, sounding like *itirrrr!* it also says *twee!* like the linnet. All its notes are uttered more frequently on the wing than when perched. The male is said to have a pleasing song, combining those of the linnet and skylark.

This Bunting breeds in Lapland, the north of Siberia, and other Arctic regions, in meadow-lands among the hills, where the ground is wet and springy. Its nest is placed upon the ground among grass and herbage, usually elevated upon a grassy knoll, or tuft; it is built of dry grass-stalks, slightly put together, and lined with feathers. The eggs are five or six in number, of a pale ochreous colour, clouded with brown.

In this species the palatine knob, although present, is smaller than in the true Buntings.

The food of the Lapland Bunting consists of seeds of various plants and grasses, and the young buds of alpine shrubs; also, in summer, of insects, which are found in abundance in the humid and marshy meadows in which it passes that season.

The Lapland Bunting, like the rest of its family, is said to bear confinement well, and to live caged several years.

The entire length of this species is six inches and a half. The wing measures from the carpus to the tip nearly four inches; the tail is two inches nine lines; the tarsus ten lines, the hinder toe and claw nine lines.

The adult male of this species, the lower figure in the plate, has the head, ear-coverts, chin, and breast rich black; a white streak commences above the eye, and extends down the sides of the neck, until it joins the white of the under parts. The nape of the neck is bright rust colour. The back is tinged with rufous and ash, and each feather is dusky along the shaft. The quill-feathers of the wings are dusky, with whitish edges, the secondaries and tertials edged with rust; the wing-coverts similarly edged and tipped with white. The tail-feathers are dusky, edged with greyish-white, and have a portion of the outer feather on each side white. The under parts are white; the flanks streaked with black. The iris is chestnut: the beak ochre-yellow, tipped with black; the legs and feet black.

The female has the black plumage of the head and breast edged with pale brown and grey, and the chestnut feathers of the nape fringed with white; the chin is greyish, and the white parts of the plumage not so pure.

After the autumnal moult, the black feathers in this species are broadly fringed with brown; the ear-coverts and streak over the eye are yellowish; and all the feathers of the upper plumage are so broadly edged with reddish-brown as nearly to obscure them; the flanks are tinged with brown, and the throat is whitish. In this state of plumage the sexes are nearly alike.

The young female has the bill yellowish-brown, the head and all the upper parts of the body pale wood-brown, tinged with yellowish-grey; the shafts of the feathers blackish-brown; greater wing-coverts and secondary quills blackish-brown, deeply margined with chestnut brown, the tips white. The quills are dusky, with paler edges. Above the eye is a broad streak of pale wood-brown; the cheeks and ear-coverts are wood-brown, the latter mixed with black. From the corners of the under mandible extends a streak of dark brown spots. The throat is yellowish-white; the neck and breast dull white, with dusky streaks down the shafts of the feathers. The tail is dusky, the exterior feather having the outer web and half the inner one dull white. The legs and feet are brown; the hinder claw nearly straight, and longer than the toe.

INSESSORES.
CONIROSTRES.

EMBERIZIDÆ.

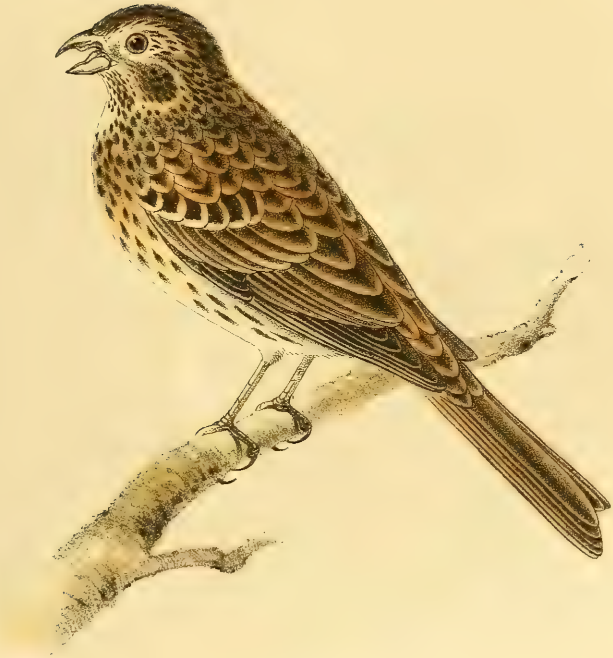
PLATE XCIX.

LARK BUNTING.

Emberiza miliaria.

This species appears to be more generally known throughout the whole continent of Europe than any other of the Bunting tribe, being found to breed as far north as Norway and Sweden, and as far south as the islands of the Mediterranean; and, in both these widely differing latitudes, it is stationary in considerable numbers throughout the year.

Leaving the wastes of heath and broom to the Yellow Bunting, and the marshy tracts to the Black-headed species, this bird prefers country of a more cultivated description, and chiefly frequents enclosed districts, where corn lands are interspersed with hedge-rows and grass fields. During autumn and winter, the Lark Buntings associate in flocks, and are often found intermixed with skylarks, whose habits and manners at this period of the year are greatly in accordance with their own. Together with these companions the Lark Buntings frequent stubble-fields and the vicinity of farms, where grain is abundant, and where, however, their visits are by no means welcome in some counties, if we call to mind the account given by Mr. Knapp of the destructive employment in which they have been found engaged, namely, un-



roofing stacks of barley by drawing out, straw by straw, the thatch, in order to obtain the grain from the ear within.

The Lark Bunting, although common in many corn districts, is rather capricious in its choice of locality, and especially avoids hills and thickly wooded parts. According to Temminck it prefers a clayey soil.

Although residing throughout the year in considerable numbers in Sweden and other northern countries, yet not all of this species remain, many migrating in flocks towards more southern parts, and returning again towards the north in spring. In Shetland, proofs of this may be noticed, according to the observations of T. Edmonston, Esq., in a Fauna of that island, in which these birds are spoken of as common in large flocks during winter, a few pairs only remaining to breed. In England, it is supposed that a considerable accession to their numbers takes place every autumn; and as these birds are frequently caught in nets in company with larks, it is probable they also migrate at the same period, and in society with them.

The note of this Bunting has in it very little that is pleasing; its harsh tones are, in spring, frequently heard from the top of a naked tree or thorn hedge, in which the bird sits in an upright position, as if acting the part of a sentinel. At this period, the winter associations being broken up, pairs only of these birds are seen, accompanied later in the season by their young family.

The Lark Bunting builds its nest very near the ground, usually raised from it only by the long dead grass or dry materials among which it is placed. The situation chosen is a hedge-bank among loose herbage, or among the corn, and usually but little concealed. The nest is constructed of dry grass-stalks, and lined with similar materials of the finest description, very neatly laid round in circles; but, owing to the loose nature of the materials, it is difficult to remove the nest entire: the innermost lining is of long horsehairs. The nest, when complete, is shallow, on account of the thickness of the matted floor or bottom. The eggs of this species are, as may be expected, the largest of its family, measuring usually an inch in length, by eight lines in diameter. Some are of the form represented in figure 99 in the plate, some even more pointed; others are of a blunt oblong shape, like the lower figure, marked as a variety. The upper figure is perhaps the most usual in form and size: in number, we have never known them to exceed four. The markings, or figures, upon the eggs of this species are very irregular, sometimes grotesque in appearance, and seem in most specimens to occur indifferently at either end: in some few they are disposed with more regularity, and form a zone round the larger end.

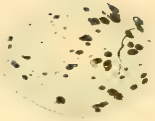
The entire length of this species is seven inches and a half. The wing measures three inches eight lines from the carpus to the tip; the third quill-feather is the longest. The beak is six lines from the forehead to the extremity. The form of the beak in this family is very peculiar, the roof of the upper mandible being furnished with a strong, bony knob, which, with the assistance of the sharp edges of the lower mandible, enables the bird to hold firmly, and break with ease, the hard external crust of the different species of grain on which it chiefly subsists. The upper mandible is smaller than the under, and fits closely into it when the mouth is shut. The tarsi measure nine lines: the tail is slightly forked and rather long.

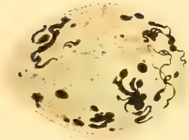
The colouring of this species much resembles the skylark. The upper plumage is hair-brown, with a dark streak along the shaft of each feather; the coverts of the wings are dusky, with yellowish-white edges; the quills, secondaries, and tertials, dusky with light edges; the tail-feathers the same. The ear-coverts are pale brown, and a dull whitish streak passes over and beneath the eye; the throat is white, slightly tinged with rufous, and spotted with dusky, and a gorget of dark brown spots passes from the base of the beak, and spreads over the breast. The rest of the under parts are pale rufous white, with dark shaft streaks upon the breast and flanks. The beak is dusky above, and yellowish at the base in summer. The legs and feet are yellowish-brown. In autumn-plumage an olive tinge is apparent on the upper parts of the body.

In their plumage the two sexes are nearly alike, and very little difference is to be observed between the old and young.

The food of this species consists chiefly of grain and seeds during the greater part of the year; but in summer they feed upon insects of various kinds, beetles, flies, &c.

Two eggs of this species are given in the Plate, and marked 99, and 99 var.





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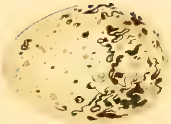

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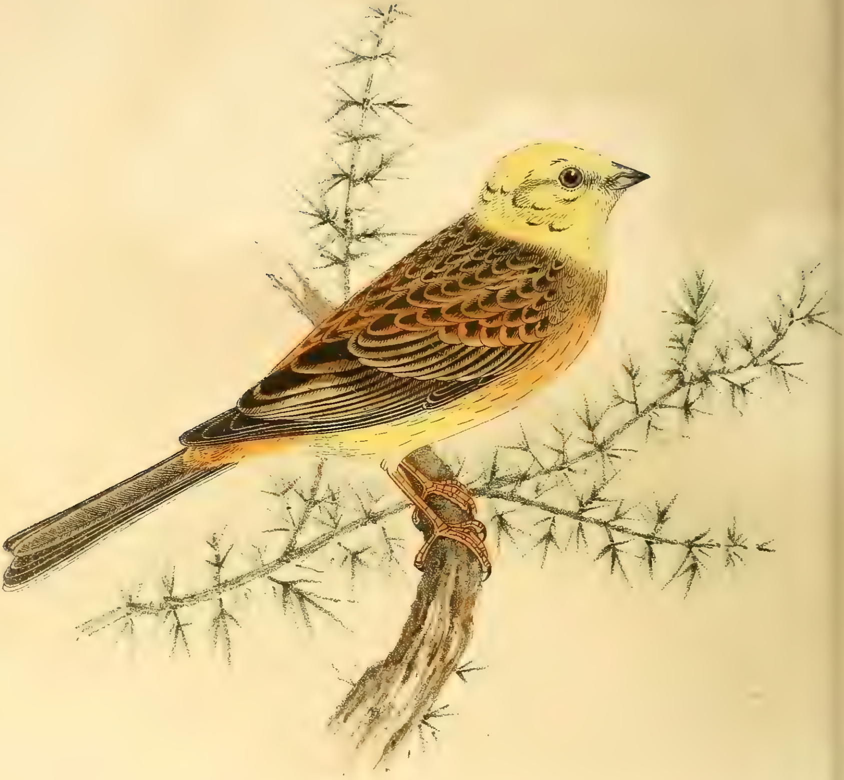


INSESSORES.
CONIROSTRES.

EMBERIZIDÆ.

PLATE C.

YELLOW BUNTING.

Emberiza citrinella.

The Yellow Bunting, one of the handsomest and best known of its tribe, is generally distributed over this country, in suitable localities ; it also inhabits great part of Europe and Asia, and is found as far to the north as Norway and Sweden. The localities frequented by this Bunting are various ; there is scarcely a hedgerow, lane, or knot of bushes, in any cultivated and open district, where this species may not be seen in spring, its bright golden head conspicuous above the varied tints of that season. It appears chiefly partial to country of an open and level character, but not exclusively to cultivated parts, as it is always to be seen among the bright broom and furze upon heathy and lonely wastes.

To our feelings, the unobtrusive character of this little bird, and its peaceful, cheerful notes, possess a peculiar charm. Who has not felt refreshed, when, toiling along a lonely road in a sultry, breathless summer day, he has heard the often repeated and happy notes of this gentle creature, which seem to express cheerfulness and content?

The note of this bird, although generally contemptuously spoken of, is really soft and pleasing ; and as a ventriloquist he is unrivalled. We once possessed a caged bird of this species, a male in fine plumage : it was caught early in the spring, and soon became very tame. It had been in our possession a short time, when one morning we heard, at some distance, as we supposed, the note of a Yellow Bunting, and concluded that the retreat of our little prisoner had been discovered by one of its own species, and wondered that it did not reply to the welcome call. The visitor seemed to be at the farther end of the garden, so very distant and soft its note appeared; still our captive made no reply, and appeared to take no notice, but continued to feed or hop about its cage, as if unconscious of the vicinity of a friend, and we wondered at its dulness in not hearing what, although very distant, was still audible in the perfect quiet of a country sitting-room. The supposed visitor appeared stationary the whole day in a particular part of the garden, which was remarkable, as such birds were never heard in the middle of the village; and we admired the more its persevering constancy. On a recurrence of the same circumstances the following day, our little bird was watched, and it became apparent that he alone was the singer, and his the note that, being uttered with exceeding delicacy, had appeared to come from such a considerable distance.

The same little individual acted afterwards an interesting and remarkable part. In the course of the summer, we met with a young cuckoo, and put it into the cage that was inhabited by the Bunting, the cage being a large one. The cuckoo was fully fledged in the mottled plumage peculiar to the young of that species, and old enough to be able to sit upon a perch; it was, at first, very shy, and, although constantly crying for food, would not take anything that was offered to it, and appeared entirely incapable of feeding itself. We tried many devices, such as fastening a bird's skin, with wings extended, upon a quill, and then putting a piece of meat upon the point of the quill, which was made to project beyond the beak of the bird. This stratagem, which is sometimes successful with young birds that will not open their mouths to a human nurse, succeeded, and our cuckoo was now quite willing to open its mouth oftener than we were willing to be at the trouble of waiting upon it; when, fortunately for the cuckoo and ourselves, the instinct of a third party more than supplied the place of our imperfect services. One morning, when we were tired of supplying the insatiable voracity of this never satisfied bird, and had suffered it to cry some little time for food without attending to it, we heard it utter, on a sudden, an extraordinary gobbling note of satisfaction, and, on looking up hastily, saw it in the act, as we thought, of devouring the Yellow Bunting, whose small golden head was already entirely within the red, cavernous jaws of the cuckoo. The head, however, emerged in safety, and the little bird flew down, picked up a piece of meat, and returned to the cuckoo; again the golden head disappeared in the cavern, and the gobbling note was repeated. It was now evident that the wonderful instinct of the little bird was roused by the hungry cries of the young monster, and that it was busily employed in supplying it with food. Our task was, therefore, at an end, and we continued to admire, for several weeks, the unremitting attentions of this admirable little creature to its adopted child. We had reason to admire, also, its instinctive choice of the food most desirable for its nursling. The cage was supplied with various sorts, to suit the several tastes of its inhabitants, such as seeds, crumbs of bread, German paste, and meat; the latter only was selected by the Bunting, although himself a seed eater, as the most proper sustenance for the nestling cuckoo, and as the best substitute for the insect food which, it is probable, is the nourishment given by all small birds to their young. The young cuckoo, which seemed throughout utterly helpless, and incapable of providing for itself, appeared to entertain a grateful, or, at least, a conscious sense of the attentions of its little friend, in as far as it always addressed its supplications for food to *it* alone, never descending from its perch to supply itself, unless the irresistible temptation of a hairy caterpillar was offered, on which occasions its laziness was so far overcome, that it would hastily descend, and seize it with great avidity.

The nest of the Yellow Bunting is usually placed upon the ground, beneath the shelter of long grass or matted briars, and bedded upon the surface; it is composed, in the groundwork, of very coarse tufts of grass and straw in great profusion; finer stems of dead grasses are employed in the inner work; and the lining is of roots, and finally of horsehair; the whole possesses a sort of tenacity while it remains on the spot where it was put together; but, being loosely built of stiff and straggling materials, especially on the outside, it is a very unsightly subject for examination when in the hand. The nests of this species are not, however, invariably placed upon the ground; we have found them occasionally at the elevation of one, two, and even five feet; in such cases they have been in close furze or brambles.

The eggs of this species are always greatly to be admired; the veins and delicate markings that distinguish them being truly curious. The ground is generally cream colour, marbled and veined with pale purple; darker veins and lines of indescribable delicacy and variety are disposed irregularly over the surface; these are, mostly, very dark brown in colour, seldom quite black. In some specimens, the ground colour is bluish-white, in others, pale stone; and we have a set, taken together from a nest closely concealed beneath tangled grass and briars, one of which is of the usual colour first described, and the other two are deep flesh colour, approaching to tile red, with reddish-brown streaks and lines. We have, also, specimens of this species of a spotless milk white, and others plain stone colour, without any spot or line whatever. The eggs of this species do not vary greatly in form or size, in general; but we possess a set of a pale purple tint, alike in appearance, of which one is of the usual size, and the two others, although perfect in form and markings, are scarcely larger than the eggs of the golden-crested wren, measuring only four lines by three and a half; the usual size is about nine lines in length and seven in diameter.

This bird is truly an inhabitant of the country, seldom approaching towns, or even villages; at the same time, it is not shy, but may be seen on every hedge by any passing traveller. In flight, it exhibits the black and white side-feathers of its tail and the rufous upper-coverts to great advantage.

Yellow Buntings live in pairs during the spring and summer, but in autumn and winter associate in flocks. On the subject of their food, much information may be derived from the "Notes on Birds injurious to Agriculture," &c., by Mr. Hepburn, of Whittingham, East Lothian, who says of these Buntings, "Like our other granivorous birds, they associate in flocks to search the stubbles, and, when these fail, they adjourn to the homestead, helping themselves to grain and seeds wherever they can be found. At oat-seed time, they may again be seen in the fields, and, along with other birds, claim the uncovered grains as their lawful prize. Even after they have dispersed to their several breeding-places, many individuals may still be seen daily, feeding on grain and small seeds, but, at this season, they chiefly subsist on insects, particularly *Coleoptera;* their young ones are largely supplied with crane-flies (*Tipulidæ*). When assembled in considerable bands, before the commencement of harvest, they often injure fields of oats and wheat, to a considerable extent, confining their depredations to the immediate neighbourhood of the hedgerow. In reference to their winter depredations on stacks, Mr. Wood, in his "British Song-Birds," says, "The Yellow Buntings can obtain the object of their search from the very heart of the stack, by pulling out the long straws one by one." From this, we must infer that the Staffordshire stacks are very small, and that the same slovenly style of agriculture prevails there as in Gloucestershire; but, in our stacks, the sheaves are always laid horizontally, or very nearly so, in concentric circles, except a few in the centre, on the ground, and on the top, to finish off the structure, which soon becomes so firm that it requires a stout pull to draw out a single straw, and the chances are always ten to one that not a single grain is left by the friction on the spike or panicle, as the case may be.

The distribution of this species does not appear to be so widely extended as that of the Lark Bunting. No mention is made of it by Mr. Drummond, as occurring either in the islands of Corfu or Crete. Neither has this bird a place in Mr. Edmonston's "Fauna of Shetland," although in Scotland it is abundant, as above mentioned, and resident throughout the year.

The gentle and affectionate character of this species was above alluded to; we may add another instance of it from the notes of a friend. "In 1824," he says, "I had a spaniel puppy, and, being with me one day in the road, he laid hold of a young Yellow Hammer, which had begun to fly, and was then resting itself in some long grass by the roadside. The puppy seized the little thing, which gave a faint cry and died. The old bird was on a tree close by, and immediately set up a lamentation; the notes were very expressive of grief, and it was impossible for any one, knowing what had happened, to listen to those notes without being affected by them. After a while, I went on, and came back from my walk in about two hours, and she was on the same tree, uttering the same sounds."

The entire length of this bird is six and a half inches. The wing, from carpus to tip, measures three inches and a half, and the tail, which is forked, extends an inch and a half beyond their tips when the wings are closed. The beak measures four lines, and is straight from the forehead to the tip; the tarsus six lines and a half.

The adult male of this species is a very handsome bird: his entire head, nape, and throat are fine lemon yellow, more or less streaked with black and olive; in very old males, the dark marks disappear, and the whole head becomes pure yellow. All the feathers of the back and scapulars, and the coverts of the wings, are blackish-brown, bordered with rufous-brown and olive. The quill-feathers of the wings, the secondaries, tertials, and greater coverts, are dusky, edged with yellowish olive. The tail has the central pair of feathers dusky, edged with rufous, the three next on each side the same, bordered with olive; the two outer feathers have a large white spot in a slanting direction, the rest of each feather pale brown. All the under parts of the body, and the under surface of the wings, are lemon-yellow; the breast is shaded with rufous and olive, and streaks of olive occupy the shafts of the feathers along the flanks; the upper tail-coverts are rufous. The legs are rich ochre-yellow; the beak bluish horn colour; the iris chesnut-brown.

The female has neither the pure golden head, nor the yellow under plumage of the male, those parts of her body being clouded and striped with olive and rufous-brown.

Young male birds differ little from the adult female.

The egg of the Yellow Bunting is figured 100 in the plate.

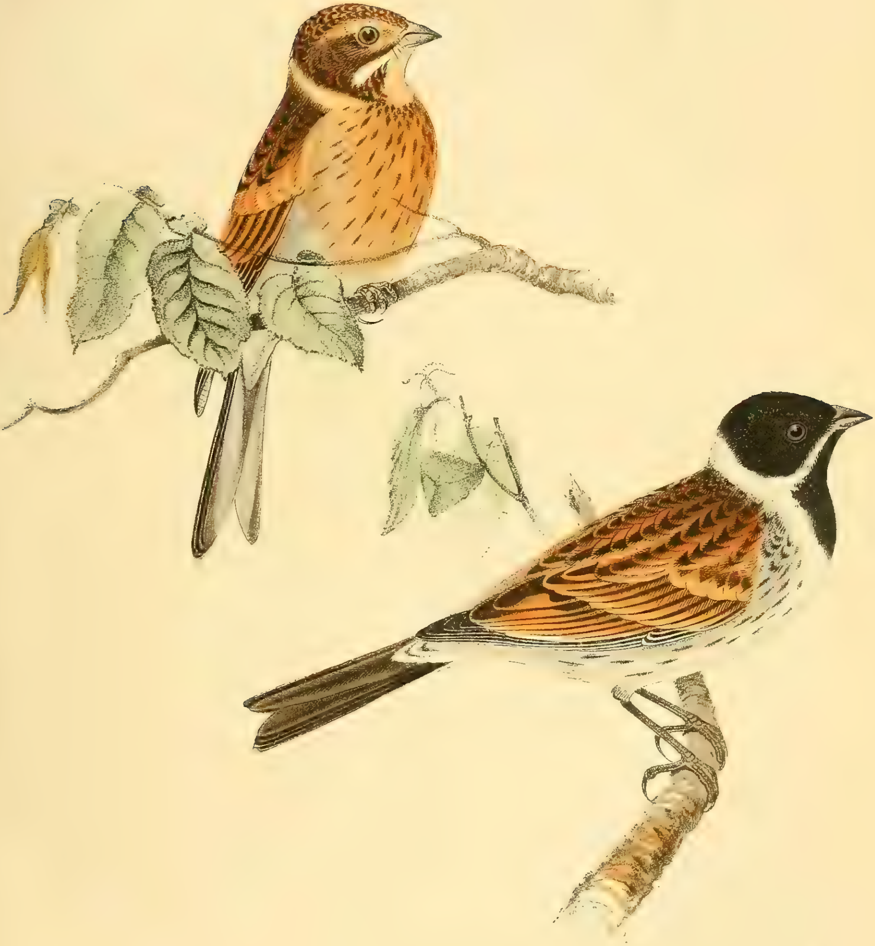
PLATE CI.

REED BUNTING.

Emberiza schœniclus.

Another member of this very handsome family is the Reed Bunting, which, although not distinguished by the lively yellow colour that belongs to most of its congeners, is not less elegant, when in its full spring dress.

The attachment of this species to the vicinity of water renders it of course local, but in aquatic situations it is often found in great plenty. Along the banks of the Thames that border the opposite counties of Surrey and Middlesex, this species is very common, and, no doubt, equally so in many similar localities. In the southern parts of England, we have no doubt that the Reed Bunting is resident throughout the year: and we are not aware that it abounds more at one season than another. At all periods, this species may be found, as before observed, on the banks of the Thames and its tributary streams; and we have seldom observed a nest of this species many yards from water of some description. In the small islands along the Thames appropriated as osier grounds, Reed Buntings abound in summer, and such places are, in the months of April and May, alive with these birds. In passing through them the birds are roused from their nests, and, springing up, cling among the slender stems of the osiers, flitting from one to another in anxious alarm. They



sit in a very upright position, swinging upon their thin stems or the still more slender reeds, their light weight causing them to bend under them; and they continually expand and close the feathers of their tails by a very quick lateral motion. Their flight is even and rapid, and performed in a straight line, opening and shutting their wings from time to time. When excited, this little bird erects the feathers of its head so that the black part appears only to reach the centre of the crown, the whole hinder part of the head being white. Their note, when under anxiety for their nestlings, is *sherrip!* pronounced quickly.

It is to be presumed that much of their own food in summer, as well as that of their young, consists of aquatic insects; and it is also probable, that insects constitute the chief part of their subsistence even during winter, as they may be observed at that season to resort, in company with the wagtails, to the river side, where, running along the shore at the immediate edge of the rippling stream, they from time to time peck among the weeds and flags that are carried down by the tide, as if in pursuit of such insects or small crustacea as the waters afford. As early as February, pairs of these little birds may be seen together thus busily employed; and in the middle of April their nests may be found containing the full number of eggs.

The nest of the Reed Bunting we have mostly found placed upon the ground under the shelter of long grass, nettles, or weeds of similar description; sometimes upon an osier stump; sometimes supported by rushes that have been broken down, but not suspended between them. In all cases it is tolerably well concealed, and might often remain so, but for the anxiety and impatience of the owners on the approach of an observer. The nest is neatly constructed of dry grasses, and generally lined very abundantly with horsehair; we have two specimens, however, in which not a single hair is used, the lining being simply of finer grass or hay. It is a curious fact, that this little bird appears always to select black hair for the lining of its nest; at least such is its custom in this part of the country. In all our specimens, ten or twelve having been examined on the present occasion, there is no variation; black is the prevailing colour, with hardly any intermixture. It would be a curious matter to observe the lining of nests of this species in counties where black horses are not to be met with; in some parts of Suffolk, for instance, along the coast, where the soil is sandy and light, and where almost all the horses are of a pale chesnut, or sand colour. How singularly different must nests from such localities appear! We must observe, that not *all* horses in this part of England are black, nor do we think that black is even the most prevalent colour among them; the choice, therefore, still rests with the little bird.

The eggs of this species, although partaking of the Bunting character in some specimens in the manner of their markings, are very different in form, being invariably, long and rather pointed at both ends, instead of short and round. The egg figured in the plate and numbered 101 is an example of the usual and almost invariable shape. In their colour the eggs of this species are tolerably permanent, being plain, pure stone, varying from a greenish to a brownish tint. They have always fewer hair-like lines, and many more distinct, round spots than Buntings in general. Sometimes, however, the larger end is delicately marked with fine hairs, woven, as it were, around the crown.

This species appears to inhabit most of the temperate parts of Europe from Sweden to the Mediterranean sea; we find, however, no mention of this bird as inhabiting the island of Crete, and its residence in Corfu appears somewhat doubtful. Neither has it a place in the Fauna of Shetland, so often quoted, although it is found in some parts of Scotland.

With regard to Scotland, however, this bird does not appear to be a permanent resident there, having been observed by a gentleman of East Lothian to leave that part of the kingdom generally in October, and to return in March, a straggler rarely remaining throughout the winter season.

The entire length of the Reed Bunting is six inches. The wing measures, from the carpus to the tip, three inches two lines; the first quill-feather is a line and a half shorter than the second, third, and fourth, which are nearly equal and the longest in the wing. The beak measures four lines and is very sharp pointed.

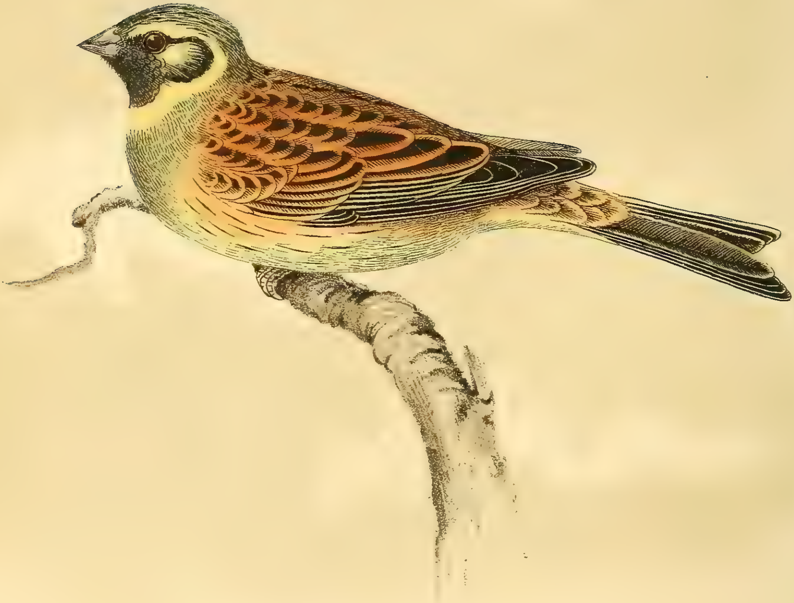
The adult male of this species is a beautiful little creature, and the various colours of its plumage are disposed as follows. The whole crown of the head as far as the nape is black, also the ear-coverts, forming an entire cap; this is bounded by a white line, which, commencing at the base of the beak, extends beneath the ear-coverts and occupies the nape; the chin and upper part of the breast are black, the rest of the under parts bluish-white, with dark shaft streaks along the sides of the breast and flanks. The back and scapulars are blackish-brown, with broad rufous edges to the feathers; the lower part of the back grey with dark shaft streaks; the upper tail-coverts greyish-white. The tertials and greater coverts of the wings are dusky, broadly bordered with brownish-rust colour; the quill-feathers are also dusky, narrowly bordered with rust. The two middle feathers of the tail are dusky, bordered with rufous-brown, the three next on each side nearly black; the two outer feathers have large wedge-shaped white marks, which are visible when the tail is spread; the basal part is dusky.

After the autumnal moult, the black and white feathers upon the head, nape, and sides of the breast are broadly edged with rusty-brown, and so much are they obscured by these, that neither the black head nor the white collar is distinct.

The female has the top of her head and ear-coverts dusky, bordered with rufous-brown; the lore, eyestreak, and chin reddish-white; a dark streak passes from the base of the lower mandible, and spreads itself over the breast in dusky spots; a white line extends from the beak, and, passing beneath the ear-coverts, forms a dingy white collar round the neck. All the dusky feathers of the back are bordered with rusty-brown, as in the male, but the pure grey that distinguishes that sex is wanting; wings and tail as in the male. Both sexes have the beak lead-coloured in summer.

The young nestlings, when scarcely able to fly, have their plumage nearly like the adult female; but the dark marks are very distinct, and the edges of the feathers are pale buff; the beak and legs are bluish flesh-colour. In this species the iris is at all periods hazel.

The adult male and female, in summer plumage, are represented in plate 101, and the egg similarly marked belongs to this species.



INSESSORES.
CONIROSTRES.

EMEBRIZIDÆ.

PLATE CII.

CIRL BUNTING.

EMBERIZA CIRLUS. (*Linn.*)

To Montagu we owe the first observations of the habits of this species in England, and, as his account embraces nearly all the particulars necessary to be mentioned respecting it, we quote his words. He says, "We first discovered this species near Kingsbridge, in the winter of 1800, not uncommon amongst flocks of yellow-hammers and chaffinches, and procured several specimens of both sexes, killed in different places six or seven miles from that place. They are indigenous to Devonshire, but seem to be confined to the southern parts of that county, contiguous to the coast, having found them extending as far as Teignmouth, at both of which places we found their nests; but have never observed them far inland. This species generally builds in furze, or some low bush; the nest is composed of dry stalks, roots, and a little moss, and lined with long hair and fibrous roots. The eggs are four or five in number, cinereous-white, with irregular long and short curved dusky lines, terminating frequently with a spot at one end; size rather inferior to those of the yellow hammer, to which it bears great resemblance. These birds pair in April, and begin laying early in May. Insects we found to be the favourite food of the young, especially the common grasshopper. When they could peck, small seeds, particularly canary, were acceptable. Oats they greedily devoured, after dexterously depriving them of their outer husk. The monotonous song of the male was incessant, shrill, and piercing; so much resembling the vociferous call-notes of the *babillard*, (the lesser white-throat,) that it requires considerable knowledge of their language not to mistake the one for the other. According to Continental authors, it is abundant in the warmer parts of France, in Italy, and on the shores of the Mediterranean, but is not found in the colder regions.

" The female might readily be mistaken for that sex of the yellow-hammer at a little distance, but is materially different when compared, especially in the chesnut colour of the upper parts of this bird. The note is simple and plaintive, similar to that of the yellow-hammer, but shorter, not so shrill, and the latter part not drawn out to such a length.

" It is said to be only found on the Continent, in the warmer parts of France and Italy; so with us it seems to be confined to the mildest part of England, but the winter of 1800, which was severe in Devonshire, did not force them to seek a warmer climate, but, on the contrary, they continued gregarious with other small birds, searching their food amongst the ploughed lands."

Since the time of Montagu this species, being better known than formerly, has been observed in many localities, chiefly in the southern quarter of the kingdom, seldom appearing so far north as the midland counties. We are disposed to attribute its being confined to counties along the southern coast, not to any partiality for the vicinity of the sea, as some have supposed, but to the greater mildness of the climate, since we find that, on the Continent, this bird is found, not only in the southern parts of France and Italy, but in Thuringia and Switzerland.

We have no doubt of this Bunting inhabiting sparingly parts of Surrey, having found nests and eggs agreeing in every respect with those of the Cirl Bunting above described, in colour, appearance, and situation; and have also seen birds that we believe to be of this species, but have not yet proved their identity by the only sure test, that of shooting the bird upon the nest.

It is most likely that the Cirl Bunting is stationary in the countries bordering the Mediterranean throughout the year, as in England; in the south of Germany, however, according to Continental authors, this is not the case, this species frequenting that part only in summer, from April to November, and leaving it entirely during the winter months. It inhabits the island of Crete and breeds there, but is said to be not very numerous; it is also resident in Corfu.

In habits and manners this species much resembles the yellow bunting; also in the localities it frequents, being found in bushes, hedgerows, &c., and among furze. In the spot chosen for its nest it differs slightly, usually placing it in the upper part of a low bush, instead of upon the ground.

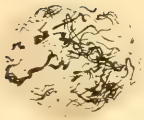
The entire length of the Cirl Bunting is six and a half inches. The wing measures, from the carpus to the tip, three inches four lines, and the tail, which is forked, extends an inch and a half beyond the wings when closed; the second and third quill-feathers are the longest in the wing.

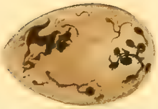
In its general appearance, this bird much resembles the yellow bunting, except in the colours of the head, wherein the adult males of the two species may always be distinguished. In the Cirl Bunting, the crown of the head, the nape, and breast are olive green; a dark streak passes through the eye and encircles the ear-coverts; the chin and throat are black. A broad yellow line passes over the eye, and, extending around the ear-coverts, forms a gorget beneath the black throat; there is also a yellow spot in the middle of the cheek. The back and scapulars are chesnut-brown, the edges of the feathers tinged with olive, and their centres and shafts dusky; the lower part of the back is olive-brown, the upper tail-coverts yellow, tinged with chesnut; the smaller wing-coverts are olive-green, the greater coverts and tertials dusky, bordered with chesnut-brown; the greater quills dusky, edged with olive-green. The under surface of the wings and the lower parts of the body are yellow, tinged with chesnut upon the breast and flanks; the latter streaked with dusky. The two middle feathers of the tail are chesnut-brown, the rest black, edged with yellow; the two outer feathers on each side have an oblique bar of white, extending half way from the tip, the external edge of the outer entirely white. The legs are brownish flesh colour; the beak bluish lead colour above, paler beneath; the iris hazel.

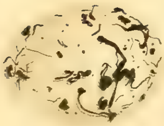
The female, according to Montagu, is rather less than the male, and he thus describes her plumage: "The upper part of the head olivaceous-brown, streaked with dusky; over the eye a dull yellow streak, passing down the side of the head; cheeks brown, on which is a yellowish spot; on each side the lower mandible is a broken streak of dusky, passing downwards; chin and throat dull yellow, the latter streaked with dusky; the back and sides of the neck and breast olivaceous-brown, with dusky streaks; belly and sides pale yellow, with large dusky streaks on the latter; the upper part of the body and wings like the other sex, but the colours less bright."

The nestlings, before moulting, are light brown on the upper parts of the body, speckled with black; the under parts are pale yellow, streaked with dusky; as the birds advance in age, the olive tint on the breast appears and increases gradually in depth of colour.

The egg marked in the plate 102 is that of the Cirl Bunting.

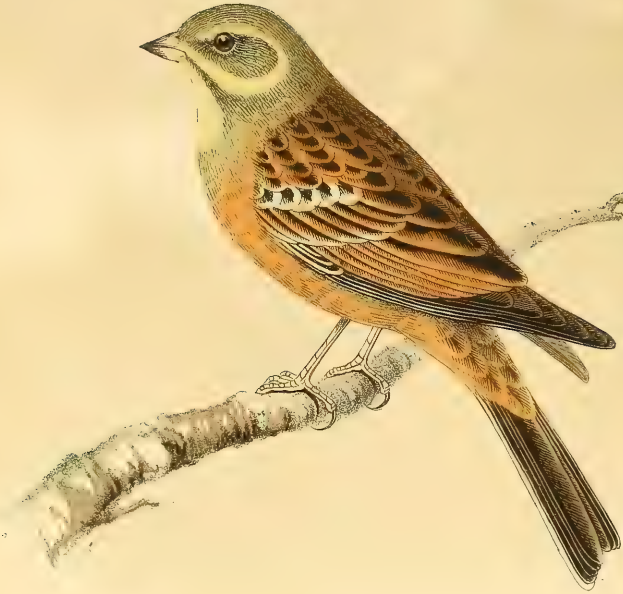






H L Meijer's Lithography.

Pl. 103.



INSESSORES.
CONIROSTRES.

EMBERIZIDÆ.

PLATE CIII.

ORTOLAN BUNTING.

EMBERIZA HORTULANA.

THE Ortolan Bunting is a very scarce bird in England, and very few instances of its capture are authenticated. These few were stragglers probably from the Continent of Europe, engaged in their vernal or autumnal course of migration. On the continent these birds are in some parts very common, arriving from the south about the end of April or beginning of May: they penetrate as far north as Denmark, Sweden, and Norway, and even Lapland, and remain in those countries to breed.

In August these birds commence their southward movement, and, passing leisurely and singly or in families or small groups, the greater part retire to the islands of the Mediterranean, or to the coast of Africa, to pass the winter. According to the observations of Mr. Drummond of the habits of this species in the island of Crete, it would appear that the Ortolan Bunting is a permanent resident there; but it has been observed by naturalists at Gibraltar to wing its flight from that locality towards the coast of Africa, and to return across the same narrow channel in the spring. In Corfu it arrives, according to the same authority, about the 10th of April, and in the beginning of May retires to the mountains to breed. In Italy, Greece, and the southern parts of France these birds are commonly met with, but they are rare in Switzerland: they are plentiful in the south of Russia, and are found in the middle and western parts of Asia.

Like other Buntings, these prefer the borders of woods, hedges, and fields, especially if near water; they also visit gardens, and frequent the banks of rivulets clothed with low willows and other bushes, and districts intersected with ditches and springy tracts. They do not, however, inhabit osier grounds so much as the reed buntings do. From their wooded retreats they visit the neighbouring fields of stubble, turnips, millet, &c., but are seldom seen in open meadows.

These birds are said to show themselves but little, in which they differ much from our common English buntings, which are remarkable for perching in exposed and visible situations. The Ortolan is said to conceal itself among branches, or on the ground amidst long grass and weeds, and rarely undertakes a lengthened flight. During the breeding season the male birds show themselves more than at other times, and may then frequently be seen upon a low tree or bush. The flight of this species is quick and undulating.

Bechstein, speaking of the migration of this species, says their route is so exact and regular, that when one has been seen in a particular spot, especially in the spring, it is sure to be found there the following year at the same time. As a cage bird, according to the same author, the fine form and colours of the Ortolan would alone be sufficient to render it desirable, but still more so its flute-like warbling, which he describes as clear and full.

The nest of the Ortolan Bunting is said to be built upon the ground among the trailing branches of a shrub, or in long grass or corn: it is constructed of dry grasses, stalks, and roots, and lined with hair. The eggs are five or six in number, and differ very little from the one figured in the plate, which we obtained from Italy. Our specimen has none of the hair-like lines that distinguish most species of the Bunting family, but some eggs of this species possess such characteristic lines more or less.

The food of the Ortolan, which is entirely sought upon the ground, consists of insects, farinaceous grain, and seeds ; for the latter they frequent in summer fields of corn of various kinds ; also hemp and millet, of which it is very fond.

These Buntings are quiet, peaceable, and harmless, and when caged have so little activity, and take so readily the food set before them, that the delicacy of their flesh, and the facility of fattening them, cause them to be much sought after for the table. From the times of Roman luxury to the present these birds have been highly esteemed : even La Fontaine's city rat in the fable is not ignorant of this epicurean treat, since he invites his country friend to partake with him of "*reliefs d'ortalans*"* as something superexcellent. The usual method of fattening them for the table is by keeping them in a room lighted only by lamps, which are kept constantly burning, so that the poor little prisoners cannot distinguish night from day, and being enticed by tempting and varied food, are kept continually feeding until they become so fat that, unless killed, suffocation would ensue. By these means they are in three days ready, and in this short space of time are become completely balls of fat, weighing about three ounces each, being double their natural size. Thus their easy temper, and the facility with which these poor little creatures resign themselves to captivity, cause their speedy destruction. In the Lausitz, in Germany, were formerly several establishments for catching and feeding these delicacies.

This species is the Green-headed Bunting of Bewick and Latham, and as such has long been known to be an occasional and rare visitant on these shores. It appears to have been first identified as identical with the Ortolan of the Continent by J. P. Selby, Esq. in his Illustrations of British Ornithology.

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* Le rat de ville et le rat des champs.

The entire length of the Ortolan Bunting is six inches three lines. The wing measures from the carpus to the tip three inches and a half, and has the first three feathers nearly equal in length ; the tail is very slightly forked. The beak measures four lines from the forehead, and the tarsi are about seven lines high.

The plumage of this Bunting is as follows : the head and neck greyish olive ; the throat, eyestreak, and a line encircling the ear-coverts, yellow. The upper part of the breast is tinged with olive, the rest of the under parts pale rufous yellow, waved with pale grey. The back and scapulars are chesnut brown, the centre of each feather dusky black ; the coverts of the wings the same, fading to dull greyish-white at the tips : the tertial feathers are dusky in the centre, and broadly bordered with rufous. The quill-feathers of the wings are dusky-grey with dull-yellowish edges : the tail feathers are dusky with paler edges, and the outer feather has a white oval spot on the inner web. The legs and beak are brownish flesh colour.

The female, according to Bechstein, has the head and neck of a changeable ash colour, streaked with fine black lines : the rest of the body is lighter in colour than in the male.

The young birds have the throat and under parts mottled with grey.

The egg figured 103 is that of the Ortolan Bunting.

Pl. 104.

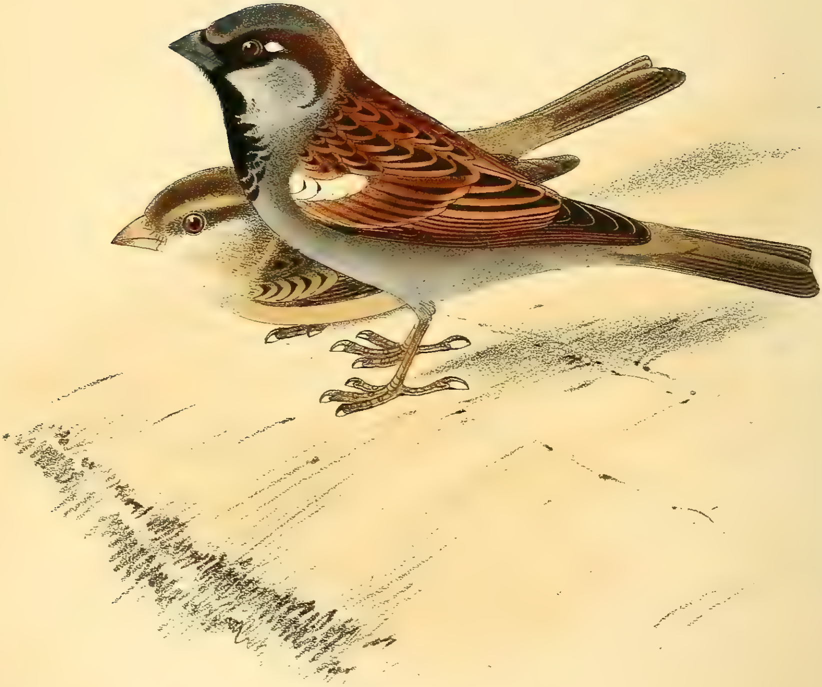

PLATE CIV.

HOUSE SPARROW.

PASSER DOMESTICUS. (*Ray.*)

The House Sparrow, it is almost superfluous to observe, is one of our commonest English birds, and very generally dispersed; being found in this country wherever human habitations are to be met with, from the solitary cottage to the crowded city. This species is also widely distributed throughout Europe, from Norway and Sweden on the north, to the Mediterranean and its islands on the south, and to the opposite coast of Africa. Specimens of this species have also been brought from several parts of India.

The House Sparrow is a bird of quick and lively passions, exemplified in the attachment it shows to its mate and offspring, and in its frequent quarrels with its associates. This species is cautious and cunning, and seldom falls into a snare, if ever so well contrived: it is bold and forward in its approaches to our dwellings, but instead of the gentle and pleasing confidence displayed towards the human race by the redbreast, the nightingale, the redstart, and some other small birds, the Sparrow shows a bold disregard that is far from engaging affection; as if our kindness and our enmity were alike despised. Instances are not wanting, however, of great attachment on the part of caged Sparrows for persons by whom they have been reared.

Of all our permanent residents, Sparrows appear the most covetous of warmth, and may be observed to take great delight in basking in winter weather upon the sunny side of a roof, or upon the gravel in a warm and sheltered pathway; sometimes they may be seen clinging against the whitewashed side of a cottage, upon which the sun shines brightly, apparently for the purpose of enjoying the warmth thereby communicated. Sparrows also, as soon as cold autumnal nights begin to set in, repair to the shelter afforded by tiles and thatches, where they repair their nests or construct new ones, accumulating a vast quantity of warm materials, such as hay, feathers, wool, and shreds of all descriptions.

Thus wisely collecting comforts about him, and providing for himself a genial atmosphere, the Sparrow sets at defiance the rigours of winter, and begins betimes to enjoy the occasional intervals of returning warmth. The early breeding of the House Sparrow has frequently been remarked: it is by no means uncommon to meet with eggs of this species in January, and instances have occurred of their being found as early as December. The young birds, when fairly fledged, may be seen sitting on the roofs near their birth-place, or squatted on the ground in their vicinity, receiving from their careful parents caterpillars and other insects, of which their infantine nourishment entirely consists.

"Much has been said," observes a practical naturalist,* "on the comparative merit of Sparrows as destroyers of insects and grain: a long series of observations induces me to assert that, with us, they prefer insect food, when it can be procured, but at the same time they like to vary their diet at every season with grain; but no sooner is the insect world called into life, and the hawthorn puts forth its tender leaves in April, than their depredations cease, and they scan the hedges, and even visit plantations at a considerable distance, in quest of insect prey. There many of their summer haunts are chosen with reference to a supply of such foods. Their depredations in a garden are similar to those of the chaffinch, besides having a great liking for green peas. Like the latter, they destroy many insects and their larvæ, but are not so assiduous in their attacks upon the leaf-rolling caterpillars. Turnip seed is also chosen food. In August, just when the grain begins to ripen, they assemble in vast flocks, and, if not carefully watched, will soon commit sad havoc on fields of wheat, oats, and barley: indeed, these crops are never safe from their rapacity till carried into the yard."

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* A. Hepburn Esq. in the 10th Number of the Zoologist.

We have also noticed the destructive propensities of Sparrows in a flower garden, especially among the gay flowers of early spring, and have observed, in warm and sheltered spots, which Sparrows are fond of frequenting, the borders strewed with crocus blossoms, plucked by these little destroyers; but whether for the sake of honey contained within them, or merely for amusement, it is difficult to say. We are inclined to think the latter is the case, since their ravages are chiefly confined to the most gaudy and bright coloured flowers. "Our crocuses," observes a correspondent, "are in great beauty, but the Sparrows are at their old tricks as usual, plucking off the yellow ones; the purple and white blossoms they seem not to care for."

This species is, as before observed, widely distributed throughout Europe: it is not, however, found in every part. According to Temminck it is rarely met with beyond the Alps, its place being supplied in Italy by a nearly allied species, the *Fringilla Cisalpina.* A few individuals, according to that author, may be observed in Liguria and Dalmatia; but they appear as strangers among the numerous flocks of the last mentioned species, and throughout the rest of Italy they appear to be very rarely seen. In Corfu, our domestic Sparrow is very common, and a permanent resident; but it is said by Mr. Drummond, in his list of the birds of Crete, not to be found in that island, although the species abounds in the Ionian islands, where the *F. Cisalpina* does not appear.

The nest of the House Sparrow is generally an accumulation of coarse and ill-assorted materials, such as dry grasses and straws, combined with shreds and morsels of all descriptions, and warmly lined with feathers, wool, and down. When a hole under tiles or in thatches is chosen, which is generally the case with early nests, the space is filled with these materials without much apparent order. As the season advances, however, many of this species betake themselves to trees, especially fir trees; under these circumstances their nests are better constructed: we have a very handsome specimen of this description, built of moss, grass, and lichens, and neatly lined with hair.

The determined battles of Sparrows with house martins, for the possession of their recently constructed nests, have been often noticed, and it appears from a circumstance observed by ourselves during the present spring, that they are able to contend with much stronger and more formidable opponents. A pair of starlings had been in the habit for some years of building and rearing their young upon the top of a house in a convenient cavity behind some rustic ornaments. They had inhabited this summer residence undisputed for years, and as usual returned to it at the ordinary time to build their nest and make their customary depredations among the cherry-trees, whose fruit was beginning to swell. They were several times seen upon the cherry-tree nearest to their dwelling, plucking off the green leaves, and carrying them to their nesting-place. One morning a great bustle was observed, and the starlings were found to be engaged in battle with a party of Sparrows, who had, in an interval of their labours, taken possession; the starlings were finally beaten off, and the Sparrows retained victorious possession of the spot, and reared their family in safety.

Sparrows are among the most inveterate of pulverizers: every one must have observed them frequently indulging in dusty roads in this unenviable delight, in which they seem to take such great pleasure, that they will hardly desist in time to escape being trodden upon. They also bathe frequently. In a particular spot with which we are acquainted, a small stream crosses a lonely road, and appears to serve as a bathing-place for the passerine inhabitants of all the country round. To this spot they flock in hundreds, and fluttering in, splash, and dip, and plunge until thoroughly wet, then, on some sudden alarm, they bustle up, making a great noise with their wings, and betake themselves to the neighbouring hedges, where they remain a short time to dry and dress their dripping plumage.

Sparrows appear to return time after time, and probably year after year, to the same spot for incubation, if it is of a permanent character, such as a trough upon a roof, &c. Such a place, namely, a receiving basin or box connected with a water-trough, we have known selected many times by a pair of Sparrows, although more than once a heavy rain has washed the unfortunate little callow brood out of their place, and precipitated them below. Still experience has not supplied wisdom, and the same place has again been, and still is, resorted to for the same purpose.

The eggs of this Sparrow vary very much in their markings, although by practised eyes they can hardly be mistaken for any other species, except, perhaps the following (*P. montanus*). They are usually long in form, and rather obtuse at both ends; in colour pale-grey or milk-white, mottled all over with ash or pale-brown: some are so deep in colour as to be black and white. The egg figured in our plate is from a specimen of unusual beauty, for this species. The

Sparrow is a most prolific species, a pair frequently producing, on a fair estimation, above five and twenty young ones in the season; four broods of six or seven being not unusual.

The entire length of the House Sparrow is five inches and a half. The beak is thick and blunt, and measures five lines and a half from the tip to the forehead: the nostrils are placed close to the base of the beak, are round, and covered with hairs directed forward, and the gape is furnished with bristles. The wing measures from the carpus to the tip three inches one line, and the second quill feather is rather the longest. The tail extends an inch and a half beyond the closed wings; and the feathers are equal in length. The tarsi measure about seven lines, and the toes and claws are thick and short.

In the adult male the crown of the head, nape, and sides of the breast are slate-colour; the chin, throat, region of the eyes, and upper part of the breast, deep black, the feathers on the latter part edged with grey: behind the eye is a small spot of pure white. The ear-coverts are greyish-white; behind them is a broad band of deep chesnut, extending upwards over the eye; the feathers in the back and scapulars are black in the centre, edged with deep chesnut, and bay: the lesser wing-coverts are chesnut, the lowest row broadly tipped with white, forming a bar: the rest of the wing-feathers are black, edged with chesnut-brown; the lower part of the back and upper coverts greenish-grey. The tail-feathers are dark-brown, edged with yellowish-brown; the under parts of the plumage pale ash-grey. The legs are bluish-brown. The iris is hazel; the beak dusky in summer, base yellowish in winter.

In the female the crown of the head and upper parts of the body are greenish-brown, the centre of each feather on the back and scapulars dusky; the lower row of the lesser coverts tipped with dirty-white: the wings and tail much as in the male. A dusky line passes through and behind the eye, and a dull straw-coloured line above it: the ear-coverts are greyish, and all the under parts of the plumage dull yellowish-grey: the beak is paler than in the male. In this sex there is no black about the head or throat.

The egg of the House Sparrow is figured 104 in the plate.

INSESSORES.
CONIROSTRES.

FRINGILLIDÆ.

PLATE CV.

TREE OR MOUNTAIN SPARROW.

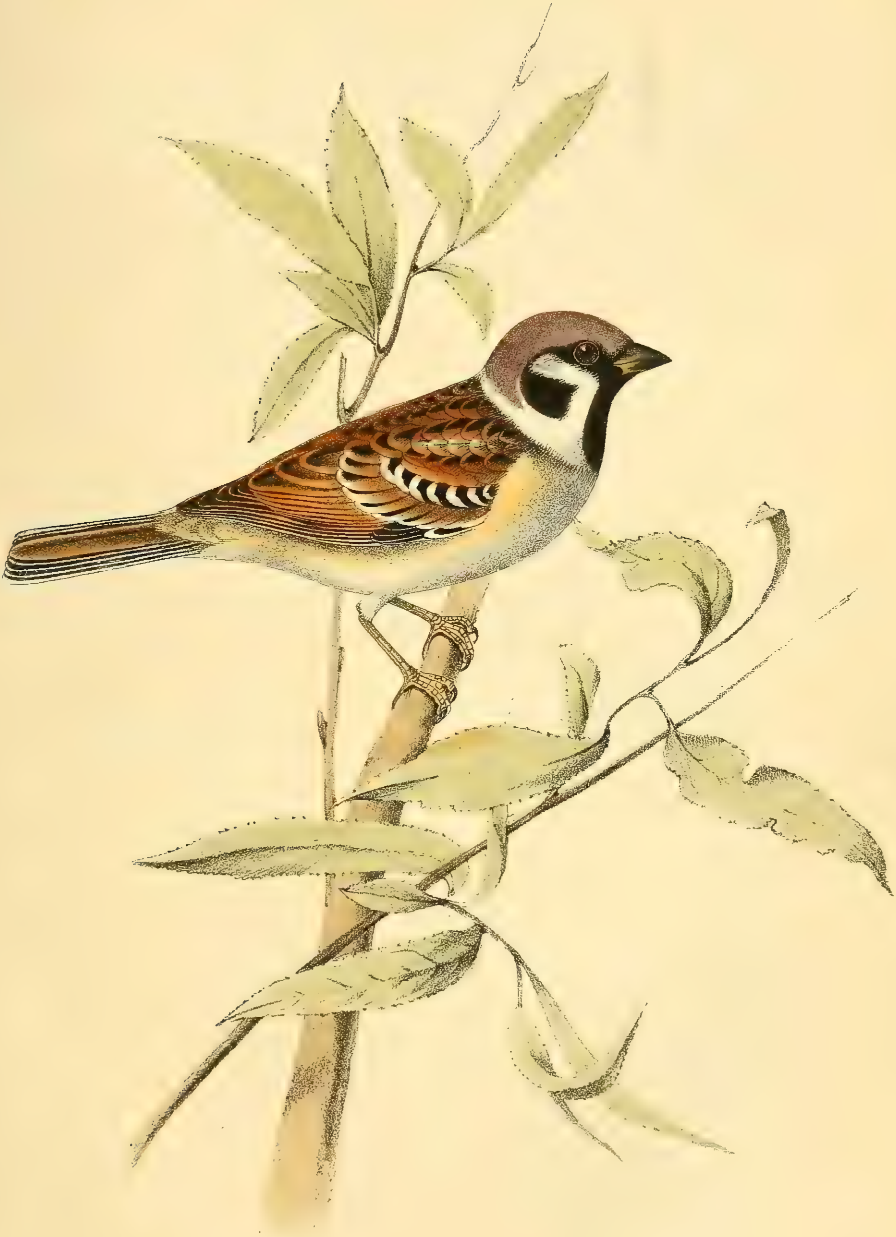
PASSER MONTANUS. (*Ray.*)

The Tree Sparrow is a handsomer bird than the common house sparrow, its generic companion. In habits, locality, and mode of nidification, it differs also greatly, as well as in some minor particulars.

The Tree Sparrow is indigenous in most countries of Europe, from the Mediterranean to Norway, but does not pass much beyond the 66th degree of north latitude. It extends over great part of Asia, being common in Siberia, Japan, and some of the mountainous parts of India.

This bird is an inhabitant of wooded and forest tracts, more than of open and cultivated districts, and is more frequently found in mountainous countries than the common species. They appear to be partially distributed, and more or less migratory in their habits, being found in some countries in large flocks, which appear at irregular times, probably influenced by the greater or less supply of food they may chance to meet with. Their usual haunts are the neighbourhood of old decayed trees, on the outskirts of woods. Such localities are particularly resorted to in spring, on account of the facilities they afford for nesting-places, which are usually chosen in old hollow trees. Unlike the common sparrow, this species seldom frequents towns or villages; the

Pl. 105.



nearest approach to familiarity it ever exhibits is, that when pressed by hunger during severe weather, it approaches villages, where a supply of food can be more readily obtained.

In England the Tree Sparrow is so little known generally, that it is still supposed to be limited to certain favorable localities. Probably if better known it would be recognised as inhabiting many other spots where the requisites of pasture and old woods are present. They were observed by Montagu near the village of Wainfleet: at Aldwinkle, in Northamptonshire they have been seen by Mr. Doubleday: and in parts of the county of Durham by Selby: they have also been met with in the counties of Cambridge, Lincoln, York, and Lancaster, &c.: at Main-wood, near Elgin; at Tilford in Surrey, &c. We have ourselves seen them in Surrey, and had living birds procured for us there; and have also in our possession eggs, apparently of the Tree Sparrow, taken from a reed fence in that county.

Some few instances have been mentioned by different writers on ornithology of Tree Sparrows building in barns, and even under the roofs of houses, in a manner similar to the common sparrow, but these may be considered rather as deviations from their general manners: we must still consider the common sparrow as the denizen of the town and the Tree Sparrow of the country, although each may be found occasionally on the outskirts of its respective sphere; the house sparrow making its summer residence among the trees, and the other species occasionally resorting to houses.

The food of the Tree Sparrow consists of many sorts of insects and seeds, also the fresh shoots of weeds and vegetables. From the nature of the food they seek it may be inferred that they are less destructive than the common species, and observations made on the subject seem to confirm the fact. Mr. Lewcock, of Farnham, says, speaking of the food of this species, " On examining the craws of about twenty individuals

I only found one that contained any corn, namely, two or three barley-corns; those of the others contained upwards of fifty seeds of weeds growing in the neighbouring fields.

The Tree Sparrow is a lively and pleasing bird when caged, and its handsome plumage, and clean, well-dressed feathers render it not unworthy of a place in an aviary: it is besides a peaceable and well-disposed companion. Little difference is to be observed in the colours of its plumage at different seasons, except an additional brilliancy in spring, owing to the usual causes; its moult taking place but once a year. In autumn and winter the beak is black at the tip only, and yellow at the base, but in spring the whole of the beak is black and polished, having the appearance of ebony.

The nest of this species, as before observed, is usually placed in a hole of an aged tree, where a cavity has been formed by natural decay or by the instrumentality of other birds; into this retreat are carried by the builders various materials, such as grasses and straws, wool, down, and especially feathers, with which the interior is thickly lined. The same loose and careless style prevails as with the common sparrow, and long and unmanageable straws are, in like manner, often left to stretch outside the cavity, betraying the retreat within. The young vary in number from four to six or seven, and several broods are produced in the course of the season; incubation commencing in February or March. Pollard willows, decayed oaks, and old pear or apple trees, are sometimes chosen for the site of the nest: they have also been found in stacks of firewood, &c., the nest is seldom less than four or five feet from the ground. The eggs of this species are smaller in size than those of the house sparrow. The young are fed with insects, and soon become able to shift for themselves, when the parents begin to prepare for the cares of another family. The same spot is often again occupied by the same pair.

In their actions the Tree Sparrows are less clumsy than the domestic species, although not very remarkable for elegance ; and they often, when upon the ground, progress in a sidelong or crab-like manner. Their flight, although bustling and apparently attended with labour, is slow and constrained. Their notes much resemble those of the common species, but are uttered in a rather higher key.

This species is the Mountain Sparrow of Linnæus, also of Ray and the greater part of our English authors : and the *Friquet*, or Beau, of Buffon and Temminck ; a name very expressive of its neat appearance.

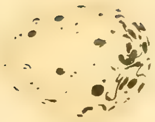
The entire length of this species is five inches and a half: the wing, from the carpus to the tip, measures nearly three inches, and the tail extends an inch and a half beyond the closed wings. The beak is less thick and blunt than in the domestic sparrow, and measures four and a half lines to the forehead : the tarsi are about six lines high.

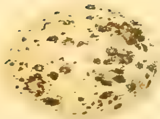
The colours of this bird are prettily distributed and are as follows : the whole upper part of the head and nape are chocolate-brown, the chin and a streak through the eye black ; the cheeks are white with a large black patch in the centre, and a white line passes round the neck behind. The feathers of the back are dusky-black, very broadly edged on the outer web with reddish-brown ; the greater wing-coverts the same with white tips : in the first row of lesser coverts the feathers are black tipped with white, forming a second bar across the wing. The quill-feathers, secondaries, and tertials are dusky, more or less edged with rufous-brown. The tail feathers are olive-brown, edged with a lighter tint. The breast is ash-grey, shading into olive-brown on the sides and flanks, the rest of the under parts paler. The legs are yellowish-brown : the iris dark-hazel.

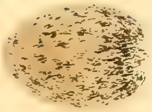
No difference of plumage is perceptible between the male and female.

Young birds are distinguished from the adult by the black feathers on the throat and face, which do not in the early stages come to their mature colouring· The eggs of this species measure rather less than those of the common sparrow, but are very similar in appearance.

The egg of the Tree Sparrow is figured 105 in the plate.

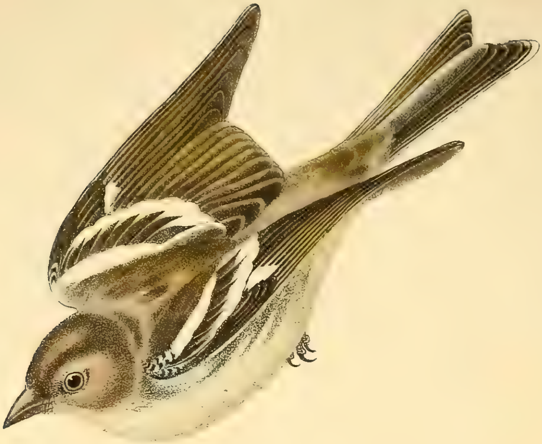






H.L. Meijer's Lithography.

Pl. 106.



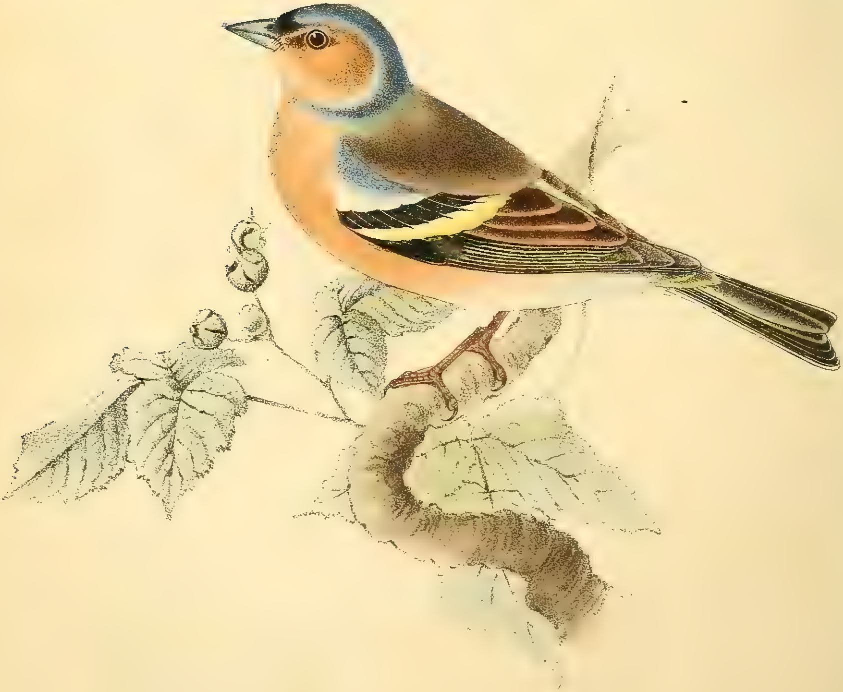


PLATE CVI.

CHAFFINCH.

FRINGILLA CŒLEBS. (*Linn.*)

THE Chaffinch is a very lively bird; his song is among the earliest that are heard in the spring, and his lively cry, *Fink! Fink!* sounds like a warning to the feathered tribes that spring is come again. About February his song commences,—at first broken and imperfect, but by degrees it arrives at its full mature compass, which consists of about ten syllables, frequently repeated again and again in the same form. The voice of this bird is good, and its native notes are full of richness and power; so much so, that among the Germans, who are known for their interest in ornithological pursuits, and excel all other people in the perfection to which they bring the performances of their singing-birds, this species is very highly prized. Bechstein speaks of its clear and trilling tones, that seem almost to approach to words: he says also, "This bird is so great a favourite in Germany, that not a single tone of its voice has escaped the experienced ears of our bird-fanciers: they have observed its nicest shades, and are continually endeavouring to improve and perfect it. I confess I am myself one of the warmest of its admirers, and could write a good-sized volume on all the details of its music." These amateurs also attribute to the wild Chaffinch a variety of different songs, which they distinguish by name; and profess to know, by their language or dialect, the natives of different provinces. As a singing-bird, however, the Chaffinch is little thought of in this country, and is seldom kept as a cage-bird.

The Chaffinch is as watchful as he is lively, and often gives the well-known warning to other small birds on the appearance of an enemy, either in the shape of hawk, owl, or cat: if one of the latter skulks beneath a bush and the Chaffinch gives the alarm, numbers of this species will collect upon it, hurrying about and chattering as if to intimidate the unwelcome visitor.

The Chaffinch inhabits gardens, orchards, and fields that abound in trees and hedgerows. Its food in spring and summer consists chiefly of insects, for which it is often seen to search among fruit-trees; and in the consumption of the seeds of many weeds injurious to agriculture, it renders service to the farmer,— such as the seeds of chickweed and groundsel, also of the crowfoot, a weed highly troublesome in some soils: and by these good services it deserves the scattered grain that it is compelled, in severe seasons, to seek in the farm or stack-yard.

Besides the call above mentioned, the Chaffinch is often heard to utter in spring the syllable *wheet! wheet!* repeated many times in succession,— a note very sweet and musical.

Much has been said on the subject of the periodical separation of the sexes in this species, which has been remarked from the times of Linnæus to our own; but in the century that has elapsed since his time, little has been added to the bare and simple fact that a separation takes place. According to Linnæus the females of this species leave Sweden in the early part of autumn, whither they do not return until the following spring: the males only remain. Bechstein, writing of his country, which is nearly in the centre of Europe, says of the Chaffinch, " This species ought to be reckoned among birds of passage, though there are always some that remain the winter with us. The time of passage in autumn continues from the beginning of October to the middle of November, and in spring during the month of March. They perform their journey in large flocks. In the spring the males arrive in separate flights, fifteen days before the females: our bird-catchers know this so well, that as soon as they perceive these (that is the females), they put up their implements, their sport being then over."

In the middle and southern parts of England, flocks of this species, consisting almost entirely of hens, or young birds, have been frequently observed; respecting which, we have the testimony of White, of Selborne, who says in his thirteenth letter, "For many years past, I have observed that towards Christmas, vast flocks of Chaffinches have appeared in the fields—many more, I used to think, than could have been hatched in any one neighbourhood. But when I came to observe them more narrowly, I was amazed to find that they seemed to me to be almost all hens." This extraordinary occurrence brought to my mind the remark of Linnæus, that "before winter, all their hen Chaffinches migrate through Holland into Italy."

The same has been observed by the Rev. L. Jenyns, in a note to his edition of White's Selborne, who says that he has seen in the north of Ireland very large flocks in which there were no males, which he concludes have migrated from more northern latitudes, and there left their mates behind them.

We have also ourselves noticed frequently, in winter, large congregations in various parts of Surrey, consisting chiefly of hen birds, and in much greater number than at any other period of the year.

In the letter of Gilbert White, above quoted, he continues: "Now I want to know from some curious person in the north, whether there are any large flocks of these finches with them in the winter, and of which sex they mostly consist? For, from such intelligence, one might be able to judge whether our female flocks migrate from the other end of the island, or whether they come over to us from the Continent."

The observations of several later authors have given a reply in part to this question. Selby says, "In Northumberland and Scotland, this separation takes place about the month of November, and from that period till the return of spring, few females are to be seen, and those few always in distinct societies. The males remain, and are met with during the winter in immense flocks, feeding with other granivorous birds in the stubble-land, &c."

Similar testimony is given by the Rev. G. Gordon, in his Fauna of Moray, which has appeared in the Zoologist; where that gentleman observes,— "The Chaffinch or Tree-lintie is one of the most abundant of the feathered tribes in Scotland. At the approach of winter, there is a large accession of the species in this part of the country; and the vast flocks which, during that season, are seen around the homestead of almost every farm, show in most cases a preponderance of males."

This appears conclusive as to the fact that our island is visited annually by both male and female Chaffinches, in large and distinct flocks, the former chiefly remaining in the northern, the latter penetrating to the southern part of the country; but, as in many parts Chaffinches are seen to remain together throughout the winter, it appears possible that our native and less numerous birds, having no occasion, on account of climate, to migrate at all, remain together. Montagu says, speaking of Devonshire, "They remain with us during the whole year, but the sexes do not separate as they are known to do in Holland and other countries." Mr. Knapp says the same of Gloucestershire; and, more recently, Mr. Hepburn, in a paper in the Zoologist, makes the same remark as to the non-separation of the sexes in some parts of Scotland. "The writings of Gilbert White," he says, "many years ago, induced me to look out for the migration of the females of this species, but his remarks are inapplicable to East Lothian."

Among our migratory warblers, it is generally admitted and recognised as a fact, that the males return to their breeding-stations a fortnight sooner than the females of the same species: this implies a separation of the sexes, and indicates that the females penetrate farthest southward. Why may we not, therefore, conclude that the Chaffinches do the same, although the motive is in both cases unknown to us? The same separation may take place among other finches, but the similarity of plumage in the two sexes renders it less apparent.

Besides the localities noticed above, the Chaffinch occurs in the Shetland Isles in winter only, but is considered rare. According to Mr. Drummond, this bird is very numerous and common in Crete, where it breeds, and probably remains the whole of the year; but it is not found in Corfu during the summer months, and, as far as he can ascertain, in none of the Ionian Islands during that season. It is there (Corfu) a bird of regular passage, arriving along with the redbreast in considerable numbers about the first week in October, and not taking its departure till the end of February, or beginning of March.

The nest of the Chaffinch is found in orchards, gardens, fields, and hedges, &c., usually from six to twelve feet from the ground—sometimes higher, and is rarely completed before the end of April. During its construction, the birds are exceedingly clamorous on the approach of any one, flying about as if much disturbed, und uttering their soft *wheet!* But when the hen-bird sits, she is so tenacious of her post, that she is not easily frightened from her nest: we have frequently seen her sit quite undisturbed upon her nest, a little above the heads of persons passing beneath. Various situations are chosen, in hedges, and especially among fruit trees ; on which latter the nest is often placed upon a naked branch ; but being very small and closely fitted to it, and, besides, covered with the lichens with which such trees are themselves often studded, it passes unseen, except by practised eyes.

The nest itself is renowned for its exceeding neatness and beauty, and the compactness of its form. It is variously constructed, according to the materials at hand : some are built of slender grass, stalks, or roots, matted with wool, and lined with hair ; the outside is covered entirely with tree-moss and lichens. In others no wool is present, its place being supplied by fine roots and spider-cots, or the down of thistles : the brim is generally very neatly woven with slender straws, and the cup is often not more than an inch and a half in diameter.

The eggs, four or five in number, are of a short oval form, clouded over with red upon a bluish ground, the colours often blended together into one tint : liver-coloured round spots and dark hair-like lines are scattered irregularly over the surface, the whole forming an appearance distinct from that of any other egg. We have occasionally found one egg among others in the nest, entirely without spots ; and possess, besides, an entire set, which are uniform dull blue without spot or line.

The entire length of the Chaffinch is about five inches and three quarters, and the wing measures from the carpus to the tip three inches and a quarter : the first quill-feather is about a quarter of an inch shorter than the second, third, and fourth, which are equal and the longest in the wing. The beak measures five lines from the forehead ; the tarsi about seven lines.

The colours of the male, which is a handsome bird, are as follows:—The forehead is black; the crown of the head, nape, and sides of the neck are bluish lead-colour; and some of the lesser coverts of the wings the same: the throat, sides of the face, and breast, are dull pink, tinged with rufous; the flanks are pink, the belly white: the bastard wing and greater coverts are black, the latter broadly tipped with yellowish-white: some of the lesser coverts of the wings are white, forming a conspicuous bar. The primary and secondary quills are brownish black, edged with yellow, and some of them have their basal part white, forming a distinct spot: the tertials are dusky, edged with reddish brown. The back and scapulars are chesnut, the rump olive; the upper coverts and the two middle feathers of the tail are lead-colour, tinged with olive: the rest of the tail feathers are black, the exterior feather obliquely marked with white, taking in the whole of the outer web; the next is tipped with white. The beak is blue, tipped with black; the iris hazel; the legs dusky flesh-colour. After the autumnal moult, the colours of the feathers appear much obscured, and the base of the beak becomes whitish.

The plumage of the female is very different: her beak is brownish flesh-colour, her head, back, and scapulars greyish olive; her cheeks are olive, and all her under parts brownish white, darkest on the breast: her wings have white bars and spots, as in the male, and yellow edges, but all the darker parts are olive-brown instead of black; and the same observation applies to her tail.

The young males resemble the female until after their first autumnal moult, when they begin to show indications of their future colouring.

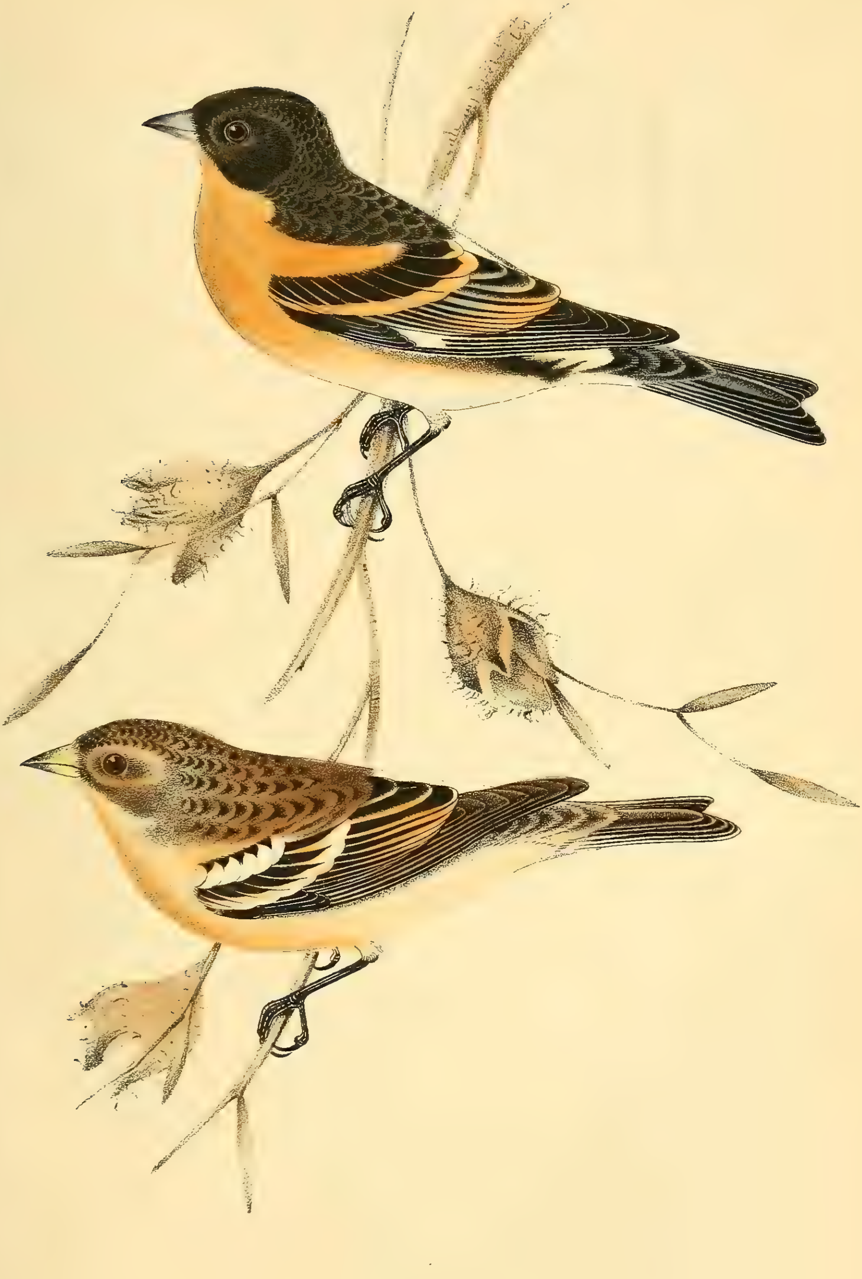
PLATE CVII.

MOUNTAIN FINCH, OR BRAMBLING.

FRINGILLA MONTIFRINGILLA.

THIS bird is a native of the northern and mountainous parts of Europe and Asia, and inhabits, in summer, Norway, Sweden, Lapland, Denmark, &c. In these countries it is said to be very numerous, as we may also judge from the vast flocks that migrate southward in winter. Its summer residence appears not to extend usually lower than the middle of Sweden, since Mr. Nilsson says, that it is only seen in the southern parts of that country in winter, and retires again towards the north in April. From these northern regions they begin their retreat as soon as they are warned of the approach of winter, and are usually first seen in our island in the end of October, or beginning of November. Their appearance here, however, seems to be very irregular, both as to time and numbers, influenced, doubtless, by the greater or lesser degree of cold northward, by which they are driven earlier or later from their native regions. In the southern parts of Scotland, they are seldom seen in flocks until November: and in England, sometimes whole winters pass without their being met with at all in localities at other times frequented by them. Severe winters, however, bring large flocks of them as far as the southern parts of England, especially to wooded and hilly districts.

Pl. 107.



In the winter of 1835 they were very plentiful in various parts of Surrey and elsewhere; and it has been observed that these birds appeared in immense numbers in the neighbourhood of Farnham during the winter of 1842, while for many years previously single specimens only had been occasionally met with.

Although large flocks have sometimes been observed in this country, they are not apparently so numerous at any time here as in France, according to the account of Bewick; or as they are in Germany, where, says Bechstein, they assemble in the beech-forests in Thuringia in immense numbers—it is supposed more than a hundred thousand.

Some years ago, a nest with four eggs was sent to us from a friend in Suffolk, which was stated to be that of the Bramble, or Mountain Finch; it was larger than that of a greenfinch, and the eggs were different from any in our collection. This nest remained a solitary specimen with us until the year 1843, when we were fortunate enough to possess ourselves of another, under the following circumstances. In the month of May, we found a nest that we supposed to be that of a greenfinch, in an elm-tree, near our garden; but the situation was uncommon for that species, and the eggs, when laid, were remarkably large. These and other circumstances induced us to watch the bird; when it proved to be neither greenfinch nor linnet, although it flew like the latter in inverted arches, uttering *tiddit! tiddit!* with each spring in its flight. It was a brown bird of rather large and heavy appearance, and was seen by several of our party, and by all considered to be decidedly a hen Brambling. She was seen several times, and the note peculiar to the species frequently heard. Some ineffectual efforts which we made to catch her on the nest, being unwilling to shoot her, caused her to forsake it; and the only course that remained to us, was to possess ourselves of this treasure, which contained five eggs. The nest was placed close against the stem of the elm, and supported by the small tufty branches that feathered it: it was well concealed among the leafing, and about six feet from the ground.

This nest, which accords perfectly in every respect of construction, and in the colour of the eggs, with that above mentioned as received from Suffolk, is composed externally of a basket-work of large roots and birch-twigs, curiously interwoven; within this external frame are many delicate fibrous roots, intermixed with green moss, and the lining is composed of wool, some grass-like fibres, cows-hair, and a few dark horse-hairs: the eggs, five in number, exactly resembled, when fresh, the figure in the plate; but after a few weeks, the rich claret colour lost its brilliancy, and became dark brown.

This was not the only occasion on which we have met with the Bramble Finch in seasons when it is supposed not to be in this country: in the summer of 1844, we heard frequently, in our garden in Surrey, its peculiar and musical note, *Chip-u-way! Chip-u-way!* with which we were well acquainted, having had birds of this species in confinement. Surrey is probably a favourable county for this species, on account of its hills and woods; the partiality of the bird for such districts being well known.

In confinement, this species may be kept without difficulty, and soon becomes accustomed to cage food, preferring seeds. It is rather quarrelsome when kept with other small birds, occasionally pecking its weaker neighbours. Although we possessed a fine old male bird for some years, we could never detect it making any attempt to sing, beyond the note before mentioned, with which it occasionally amused itself. The syllables *chip-u-way* are usually repeated in succession and singly, the first shrill and rather musical, the latter somewhat resembling the untaught whistle of the bullfinch. Sometimes the first syllable, *chip*, is repeated seven or eight times in succession, and then ends, as usual in *way;* but this is only in the summer.

In the specimen mentioned above—a very fine old male—no difference was to be observed in its plumage after moulting, the new feathers shewing little or none of the lighter coloured fringes usual in younger birds.

In the severe winter of 1836 we were frequently gratified by the sight of numbers of this species in Claremont Park, where they used to assemble beneath the beech-trees in search of food; and the weather being unusually cold, they were less wild than common.

The Mountain Finch is found as far south as Rome and Smyrna, in winter; but this latter locality is, perhaps, its most southern range, as we find no mention of it further. In the Catalogues of Mr. Drummond, so often mentioned, of the birds that inhabit or frequent the islands of Corfu and Crete, this species does not occur.

The entire length of the Mountain Finch is six inches and a quarter. The wing measures from the carpus to the tip, three and a quarter inches; and the tail extends an inch and a quarter beyond. The beak is six lines in length, strong and sharp-pointed: the nostril is round, and partly covered with stiff hairs, reflected forwards. The tail is considerably forked, the outer feathers being a quarter of an inch longer than the central ones. The tarsi measure eight lines in length; the claws are long and rather straight.

The colours of the adult male in winter are as follows: the entire head, cheeks, and upper part of the back, rich velvet-black; the feathers of the nape very narrowly bordered with silver-grey, those of the back slightly edged with rust: the lower part of the back and rump are white; the upper coverts of the tail black with grey borders; the tail-feathers black. The lesser coverts of the wings are rufous; the larger are black with rufous edges: the primary quill-feathers are black, with a small portion of white at the base, and the edges narrowly bordered with yellow: the tertials are black, edged with rust. The breast is rich ferruginous, which becomes lighter upon the rest of the under parts: the flanks are spotted with black. The iris is rich hazel; the beak yellow at the base, and black at the tip: the legs and feet are dark flesh-coloured brown. In summer the beak of the adult male becomes blue at the base, instead of yellow; but there is very little difference in other respects at this age, as the head is at all seasons black.

In younger males, the feathers of the head and upper parts are in autumn very broadly edged with grey and rufous, almost obscuring the black centres.

In the female, the same distribution of colours occurs; but her feathers are brown where those of the male are black, and the rust-colour upon her breast is not so full.

The upper figure in the plate represents the adult male of this species, drawn from life: the lower is the female.

The egg numbered 107, is that of the Mountain Finch.

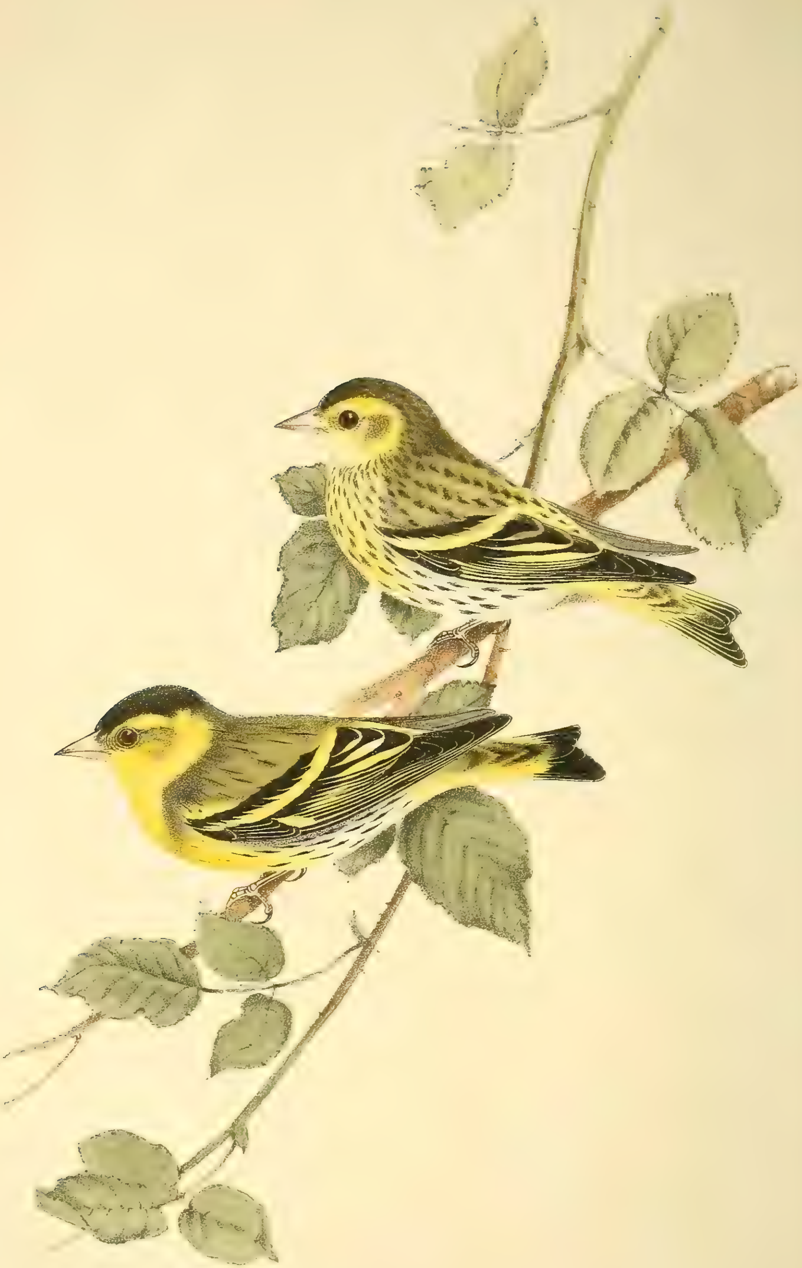


PLATE CVIII.

SISKIN.

CARDUELIS SPINUS.

THE Siskin is one of the smallest and liveliest of British birds. It is always in motion, flitting from branch to branch, or hanging head downwards upon the ends of the bending sprays in search of food. In a cage it is equally quick and restless, always climbing upon the wires, or sitting upon the seed-basket, busily employed; or driving away with impatient gestures and sharp pecks any of its little companions that endeavour to get their share of the newly-arrived food. These interesting little creatures are also lively in their feelings, as well as in their actions, shewing great affection towards their mates, and, in a wild state, constantly associating together in families and flocks. Although classed by systematic authors with the goldfinch, this species has, in its general manners, more resemblance to the redpole, with whom it often associates in companies, feeding and flocking together, their food being generally the same, consisting of the seeds of firs, alders, and trees of a similar character.

These birds are said to be indigenous to the middle parts of Europe, including chiefly Germany and Austria, and the southern parts of Russia. In France and Holland they are mentioned as periodical winter visitors. They also penetrate as far southward as Italy, where they are called "*Lucherina*." They are not mentioned in Mr. Drummond's list of the birds of Crete; and, according to that gentleman, are not known in Albania, or any of the adjacent islands—one specimen only having been shot by him in Corfu, which was supposed to have escaped from a cage. This bird appears to have an extensive range eastward, being found, according to Temminck, in Japan.

The Siskin is with us also a migratory bird, and rather partial and uncertain in the times of its appearance. In Surrey it is popularly believed to appear only once in seven years; this is, however, a little variation from the fact, but as its arrival among us is hastened or retarded by the state of the temperature and other causes, it is generally very irregular. Their time of arrival in Scotland is frequently as early as October, and in England they sometimes appear about the same time.

The winter manners of the Siskin are accurately described by A. Jerdan, Esq. in the Zoologist, who says, "About the beginning of December last, I observed a flock of Siskins, consisting of about sixty individuals. They frequented some alder-trees by the side of the Jed, on the seeds of which they seemed principally to subsist. They were not at all shy, but, with due precaution, would allow me to approach, and stand under the tree on which they were feeding. It was a pretty sight to see them all busily engaged in extracting their food from the catkins, every bird quietly attending to its own employment, and in nowise interfering with its neighbours. The various attitudes into which they would throw themselves, in order the more readily to obtain the seeds, were also exceedingly pleasing and graceful. When disturbed, they all took wing, and, uttering a somewhat harsh call-note, circled round in the vicinity for a minute or two, and then alighted on some other tree. Once when I had alarmed them, they betook themselves to a neighbouring wood, and dispersed themselves up and down in small parties, and did not re-assemble for some time. Upon this occasion, I remarked that some of them resorted to the ground, among the withered leaves, in company with some tits that happened to be passing at the time; but whether they were in search of insects or not, I could not ascertain. The call-note of the Siskins was repeated at intervals while flying. The seeds of the alder seem to be the favourite food of the Siskin, in winter and spring; and this circumstance will account, I think, for its irregular appearances and disappearances in various localities. The abundance or scarcity of this food at different places and in different seasons, must greatly influence its motions and partial migrations."

The researches of naturalists of late years have been rewarded by the observation of the Siskin in various parts of Scotland, during the summer months: and in some localities it was supposed to breed: namely, in Argyleshire, on the shore of Lochfine, in Aberdeenshire, &c. In the neighbourhood of Dundee they have also been found in a nestling state; but no instance, that we are aware, has been recorded of their nests being taken in England, except those mentioned in Mr. Yarrell's British Birds, page 497, from information which we had the pleasure to give him. The nests there mentioned were obtained in Coombe Wood, in Surrey, in the summer of 1836, from which several nestlings were reared. We ourselves possessed one of them, a fine young male, and had him a considerable time. At the age of a year he still had no sign of the black throat that distinguishes this sex in maturity, the feathers of that part being nearly white: in other respects his plumage was complete. He was kept in a large cage with several little companions, with whom he was on very good terms, and especially with his own mate. In the spring of 1838, being very desirous of inducing this little pair to breed, we placed them by themselves in a proper cage, which was put into a room where they would be quite unmolested: here they remained some weeks, but seeing no sign on their part, of any intention to fulfil our wishes, the cage and its little inhabitants were again brought among the family. In the course of the day, however, the female was observed to be very restless, constantly chirping, and busy in carrying about small pieces of the building materials with which she was supplied. We immediately provided the cage with sufficient food and water to last for several days, and replaced it in its former quiet apartment. In a day or two, being anxious to know if our little prisoners were in want of anything, we ventured quietly into the room, and, to our great pleasure, saw a little nest in one of the compartments, partly built; it was about the size of a goldfinch's, and the bird had selected from the materials given her only the white ones, namely, wool and feathers: there was yet no egg. In another day or two we repeated our visit: it was on the 22nd of June, and we were grieved to find the beautiful little nest destroyed, and a solitary egg lying upon the floor. The hen-bird was sitting upon one of the perches, motionless and dull, her dear little mate all the while singing his sweet song, as if to rouse her. Finding our hopes thus blighted, we opened the door of the cage, the window of the room being secured with network, in hopes that the free air and the liberty of ranging the room, might revive her spirits and induce her to resume her task: but it was all in vain. The male bird continued his unremitting attentions, fluttering around his mate, and singing his lively song hours together, while the hen sat usually upon a peg that was fastened into the wall, taking no notice of him or his attentions. One morning on listening at the door for his usual song, nothing was to be heard; and looking in, we found our favourite, the cockbird, lying dead upon the floor. The cause of his death was entirely unknown, as no injury appeared about him. The hen bird lived a considerable time after this event, but our interest in her was lost; and she had, besides, never been so tame or interesting as her happy and affectionate little mate.

Since that time we have never succeeded in bringing the Siskin to breed, but we have been so fortunate as to take, on two different occasions, undoubted nests of the species. The first we found on St. Anne's Hill, the beautiful and well-known elevation that rises on the western side of the town of Chertsey, in Surrey; and the other was taken in a wild straggling hedge in the open plain bordering the Thames, at no great distance. In both cases the parent-bird was distinctly seen upon the nest. The nest on St. Anne's Hill was built in a furze-bush: it was constructed, externally, of the rough, angular stems of galium, and of the straggling roots and stems of spear-grass; next to these was a loose matting of fine fibrous roots, intermixed with a little wool, and lined with cows-hair and the down of rabbits. In the other nest, taken on the plain beside the river, the external materials are the same; but thistle-down is used instead of wool, that being a rare production in these lower grounds. This nest was in a whitethorn bush, well concealed, and about five feet from the ground. The eggs in both are pale greenish-white, spotted around the zone with purple, and a few dark brown spots.

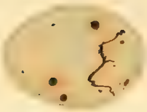
This species is said, by Temminck, Bechstein, and other authors, to build in fir-trees, placing its nest at the extremity of the highest branches. This situation appears, however, not always selected; a nest found in Camperdown Woods, and mentioned in Loudon's Magazine, by W. Gardiner, Esq., of Dundee, was situated close to the trunk, in a branch of a spruce-fir, and only six feet from the ground: the nests also of this species that were taken in Coombe Wood in Surrey, were placed in furze at only two or three feet from the ground; and the two above mentioned were also in bushes not more than four or five feet from the ground, although in one case fir-trees in great plenty were near at hand.

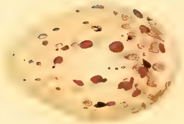
The song of the Siskin is very sweet, full, and rich; it has also much variety, and is by many amateurs preferred to that of the canary, which it resembles in sprightliness, without being too loud.

The entire length of this little species is four inches and a half. The wings measure from the carpus to the tip two inches and three quarters, and cover, when closed, the greater part of the tail, the longest feathers of which exceed the wings only half an inch. The beak measures four lines and a half, from the forehead to the tip; the tarsi are half an inch long, and the claws very slender and sharp.

The characters of the genus *Carduelis*, comprising this and the following species, are, according to Selby, as follows:—"Bill conical, longer than deep, compressed anteriorly, and drawn to a very acute point: culmen of each mandible narrow: tomia of the upper mandible angulated at the base, and slightly sinuated: nostrils basal, lateral, and hidden by incumbent bristles: wings of mean length, the first quill-feather rather shorter than the second and third, which are nearly equal and the longest of all: tail rather short and forked: legs having the tarsi short; &c.

The male has the forehead and crown velvet-black, with a brown tinge: a sulphur-yellow streak passes over the eye towards the nape: the ear-coverts, nape, back, and scapulars, are oil or siskin green, the two latter streaked along the shaft with dusky lines: the lower part of the back greenish yellow. The chin (in males of three years old and upwards) is black. The breast is yellow, shading into white upon the belly; the





flanks and under coverts of the tail are tinged with yellow, and have dark shaft-streaks. The spurious winglet is dusky, the lesser coverts of the wings the same, tipped with olive : the greater coverts are dusky, bordered with yellowish green : the quill-feathers dusky, with the basal part and edges yellow, the secondaries and tertials have olive edges. The two middle tail-feathers are dusky, the rest are yellow, with dusky tips and shafts. The beak is flesh-colour at the base, and dusky at the tip : the legs and feet are brownish flesh-colour : the iris dark brown.

After the autumnal moult, the head and throat have dirty white edges to their black feathers, and the whole plumage appears mealy from the same cause. In young males the chin is white, and does not, at least in confinement, show any of the black feathers that distinguish that part in maturity, until after they are two years of age. In very old specimens, according to Bechstein, the whole breast becomes black.

Young birds of this species, before their nestling feathers appear, are covered with black down.

In the female the head is pale dusky olive, with the centres of the feathers darker. The rest of her upper plumage is brownish olive, mottled with black: her cheeks are pale brown: her throat, breast, flanks, and under coverts of the tail are white with dark shaft-streaks, the middle of the belly plain bluish white: her wings are as in the male, but the yellow much paler; and in her tail-feathers the dusky encroaches nearly to their base: eye-streak and sides of the head very pale yellow: beak and legs as in the male.

The egg figured in the plate is from the one produced by the above-mentioned pair.

INSESSORES.
CONIROSTRES.

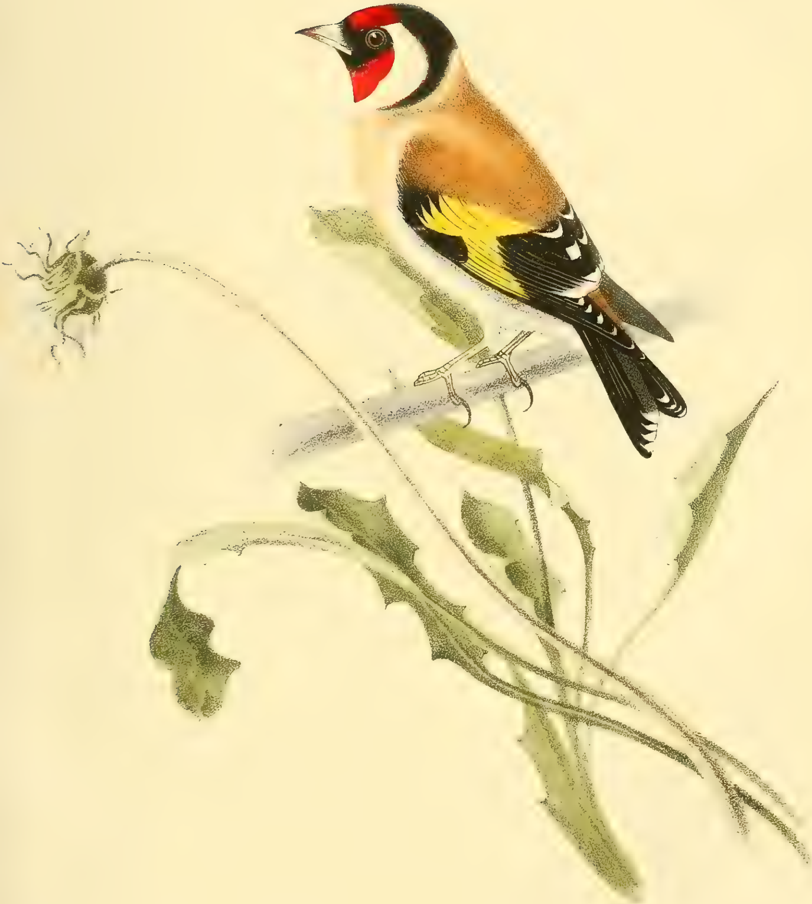
FRINGILLIDÆ.

PLATE CIX.

GOLDFINCH.

CARDUELIS ELEGANS.

THE lively and elegant Goldfinch is a universal favourite in all countries where it is known, for its sweet song, its gentle docility in confinement, and its unpretending usefulness at large. This species is met with in most parts of the kingdom, and in some very plentifully, especially in hilly districts and uncultivated wastes, where some of the wildest and least valuable productions of the vegetable kingdom furnish its frugal repasts. Widely extended commons which abound in thistles, are the usual resort of this species in autumn and winter—especially where tracts of firs and other plantations afford them shelter for the night. Here, in sunny autumn and winter days, small flocks of these bright little creatures may be seen scattered about and feeding among the thistles, or standing upon the prickly heads of the teasel, busy in extracting the seeds from among the spines by which they are protected: in these pursuits they exhibit many graceful attitudes and agile movements. In many parts of Surrey and Middlesex, where uncultivated commons and pasture-lands afford much of their favourite food, this species is very generally dispersed. We once met with a curious circumstance with respect to this finch, which shows the species to be numerous in those counties. Crossing a grass-



field in Middlesex, in the vicinity of the Thames, we observed, about the middle of it, a spot above six feet in circumference, entirely covered with the remains of at least a hundred Goldfinches. These had evidently been the prey of some hawk that frequented the neighbourhood, most probably a kestril; but why this particular spot should be chosen for its dining-place, was not so apparent. On examining the place, however, we observed that the spot was a little elevated above the rest of the field, and the ground had for some days previously been covered with snow. The snow might have lain more sparingly upon this spot than elsewhere, or from its slight elevation above the rest of the field, might have been swept off by the wind, and thus have afforded a motive to the hawk to choose it as a resting-place. Many of the hawk tribe are supposed to carry home their prey, to a selected spot, for consumption; of which the kestril affords an example, for when confined by a chain, or partially at liberty with its wing clipped, it is frequently observed to carry to a certain spot, and secrete such portions of its food as remain after its hunger is satisfied for the time. We have even seen a bird of this species go again and again to the spot, and peep to ascertain whether its treasure were still in safety.

This species, according to Temminck, is found from the islands of the Grecian Archipelago, as far north as Siberia, and is considered more or less stationary in all parts. In the Shetland Isles, according to T. Edmonston, Esq., this species is an irregular winter visitant. In a Fauna of Moray, by the Rev. G. Gordon, the Goldfinch is spoken of as not very common, although it is abundant in many other parts of Scotland. In a note on this species in the Zoologist, Mr. Hepburn says, "Many years have now elapsed since the Goldfinch nestled about our ansteads and villages, where they were once as plentiful as sparrows.

Grey-haired ploughmen talk of their services among the thistles, and other weeds in the outfield; but infield and outfield the wretched agricultural practices of the olden times have alike passed away, and with them this bright finch, which is now only known as a rare straggler." In Crete, according to Mr. Drummond, the Goldfinch is common, and a permanent resident: in the island of Corfu, however, these birds are seen in large flocks during the winter only, arriving in the latter part of September, and disappearing by the first week in April: few only remain during the summer. In France and Germany, and other parts of the middle and south of Europe, this species is numerous.

Besides thistles and teasel, before mentioned as articles of food, Goldfinches feed upon the seeds of the dandelion, lettuce, groundsel, and many other plants of similar kinds; also chickweed, hemp and canary seed, &c.

The Goldfinch constructs its nest in gardens, orchards, and plantations. It is a small and elegant fabric. One in our possession is formed, externally, of broad, flexible blades of dry grass, forming a close and beautiful matting, and lined with a great number of feathers, chiefly placed in an upright position, their hollow sides fitting around the cup-like interior. The feathers are entirely white, and the dry grass very pale in colour, forming altogether a structure of great delicacy and beauty: this nest was taken from a furze-bush upon a common. Most nests of this species are constructed of moss, wool, and lichens, and lined with thistle-down, feathers, or hair; it may therefore be presumed that Goldfinches, as well as many other species, employ any materials at hand that are capable of being adapted to their purpose.

When the Goldfinch builds in a garden, it often selects an elder-tree for the site of its nest; we have also been told of its partiality for the Tartarian honey-suckle as a nesting-place. But even in localities where this species is plentiful, we have observed that their nests are not readily met with; either they are well concealed, or they are placed too high for observation, this species being known to build frequently in elms of considerable height, and often as high as thirty feet from the ground. When thus placed, the nest is within a foot of the top of the tree, and usually supported in the fork of a small branch.

The eggs of this species, five or six in number, are pale sea-green or greenish-white, more or less freckled round the larger end with reddish-brown, and marked with a few fine dark hairs or specks. The native song of the Goldfinch is sweet and varied: and in its manners, when caged, it is most gentle, affectionate, and confiding. The great docility of this species is too well known to need much comment, and has caused it to be taught many curious and amusing tricks. We ourselves possessed a bird which had been taught to lay itself down in its master's hand at command, as if dead; which it performed admirably: and such was the retentiveness of its memory, that after it had been nearly two years in our possession without practising this feat, it repeated it again the instant it was called upon to do so.

In their winter habits these birds are gregarious, but do not collect in such numerous flocks as do some of the finch tribes, their flights rarely amounting to more than twenty or thirty. When feeding together they often utter a sociable chirping note.

The entire length of the Goldfinch is five inches. The wing measures from the carpus to the tip three inches, and the first three quill-feathers are nearly equal in length; the beak measures five lines from the forehead; the tarsi six lines, and the tail, which is much forked, extends little more than half an inch beyond the points of the folded wings.

The bright and varied colours of this finch render it one of the most attractive of our native species; they are as follows: The beak, which is drawn to a fine point, is pearl colour, tinged towards the tip with dusky horn; it is encircled at the base by a narrow black band, the hairs of which, reflected forwards, cover the nostrils; the eye is also surrounded with black. The front of the head and chin is scarlet, the ear-coverts and throat white; on the crown of the head is a small black cap, the corners of which are brought down behind the ear-coverts; and a small greyish-white spot occupies the nape. The back and scapulars and sides of the breast are bright wood-brown. The wings are beautifully varied with black and yellow; the former occupies the carpal portion of the wing, including the spurious winglet, the lesser coverts, and part of the greater coverts. The quill-feathers, secondaries, and tertials, have the basal half of their outer webs bright golden yellow, the rest velvet-black, with a small pearl-like spot upon each of their tips; the first quill-feather alone is dusky throughout. The tail-feathers are black; the two outer on each side have a large, oval, white spot or speculum, occupying a portion of the inner web, the rest of the tail-feathers have a triangular white mark at their tips. The breast and flanks are tinged with wood-brown, the rest of the under parts are pure white. The iris is hazel, the eyelid black, and the legs are pale yellowish-brown.

The females of this species do not differ essentially from the males in colour, but bird-catchers readily distinguish them by the tints of their plumage being less pure; the black parts are tinged with brown, and the red feathers sometimes intermixed with black.

In young birds of the year the colours are imperfectly developed; the heads are grey instead of black, and the brown parts obscured with dusky shades.

Pl. 116

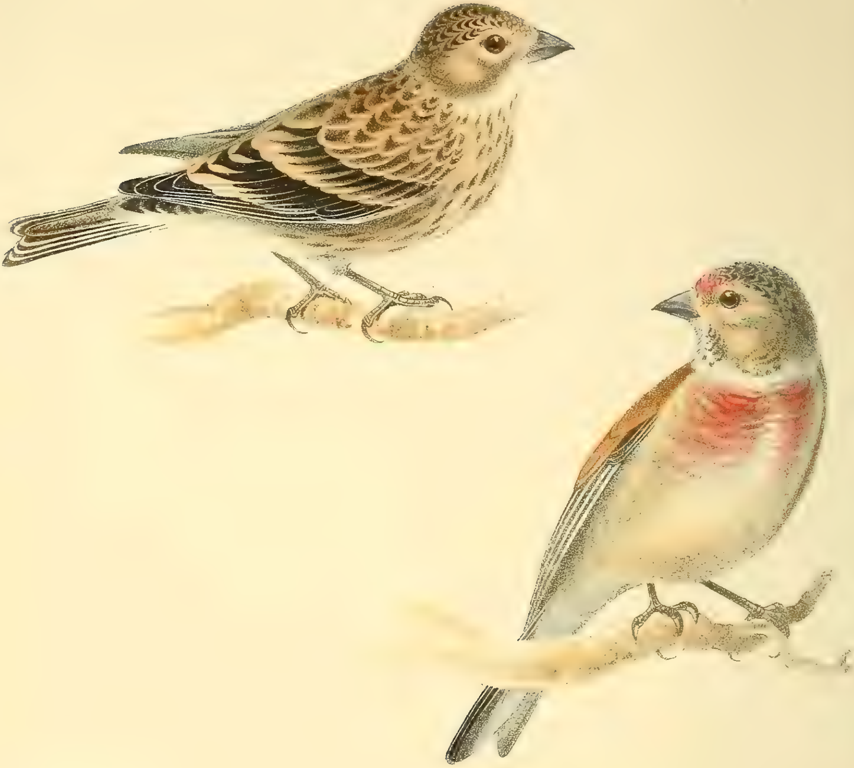


PLATE CX.

LINNET.

Linaria canabina. (*Swainson.*)

The Linnet is a very abundant species in most parts of England, enlivening lonely commons and waste uncultivated spots, where furze, broom, and heath supply the place of shrubs of higher pretensions. These are the localities chiefly frequented by Linnets during the summer, and in which they rear their young in vast numbers. Their nests, which are usually about four feet from the ground, are placed in bushes of furze, or whitethorn, and not much concealed, if we may judge from the numbers that may always be readily found in May and June in any favourable situation. The nest of the Linnet is often of a large size, in proportion to the dimensions of the bird, and far less neat in its exterior outline than those of the finches in general. Large tufts of grass and straws usually form the basement, very loosely put together; the upper work is rather more firm and neat, interwoven with fine roots and wool: the lining is of horse-hairs, very neatly laid in some specimens, and forms a pleasing contrast with the rough exterior; some in our possession are, however, more compact, resembling externally the neatest nests of the whitethroat, but much more warmly bedded and lined within. The eggs of this species vary greatly in size, form, and colour; some are simply speckled around the zone with rufous-brown, and reddish-lilac; while others resemble exactly the goldfinch's egg represented in figure 109. Some present only a few spots of a reddish-black colour, irregularly disposed, and others are occasionally found without any spots whatever. Of the latter we have an example in a nest containing four eggs, of a pure milk-white. The Linnet occasionally builds in gardens, but we have observed it to be more shy than the nightingale, the redbreast, the greenfinch, and many others, being more inclined to forsake its nest if watched or observed.

The Linnet has many good qualities in its character and habits: it delights the lover of nature nearly at all seasons, with its varied and cheerful song, which is continued nearly the whole year. Their winter chorus, often poured forth simultaneously from many little throats, has been observed and alluded to by various authors, particularly Sir W. Jardine. Mr. Hepburn also describes the choral bursts of assembled hundreds on a hedgerow tree, in a calm winter's day, enlivening the bleak and desolate fields. In its habits this is a harmless species, contenting itself with the seeds of many of the spontaneous productions of the soil,—such as the southistle, and dandelion, the common thistle, &c., also the seeds of rape and other cruciform plants; hemp, flax, &c.

Linnets are somewhat terrestrial in their habits, feeding much upon the ground, especially in winter, when they chiefly frequent stubble-lands: they roost, however, in hedgerows and bushes. They are gregarious in autumn and winter, at which seasons they associate in considerable flocks. They settle in numbers together upon the ground to feed, and when roused, fly off to a little distance uttering a chirping sound. Their flight is springing and light, and they utter as they fly the syllables liddit! or linnet! from whence we think their common name is more likely to have originated, than from any more learned source.

The Linnet is a very common and widely-dispersed species throughout the whole continent of Europe, from the Mediterranean and its islands on the south, to Norway and Sweden in the north. This species does not appear to follow the great law of migration to any extent, being spoken of as a permanent resident in Sweden, Norway, Denmark, and the more temperate portions of Russia. In Scotland it is also found throughout the year, but is mentioned by T. Edmonston, Esq., in his Fauna of Shetland, as only known in that island as a winter straggler. In Holland and Germany, the Linnet is abundant and a constant resident, and the same in Corfu, Crete, and other islands in the Mediterranean. It is found also in Persia, Japan, and Asia Minor.

When caged, the Linnet is a cheerful and pleasing bird, its voice is sweet and flute-like, and according to Bechstein, its powers of learning are considerable, as it readily acquires the songs of other birds, even of the nightingale; and its voice is so flexible, as to be able to utter words. Of the power of the finch tribe to articulate distinct sounds, such as syllables and words, an instance has lately occurred in London, in a canary, of which we can ourselves bear testimony, having heard it utter, most distinctly, several short sentences.

The entire length of the Linnet is seldom more than five inches and a half. The wing measures, from the carpus to the tip, three inches and a quarter; and the first quill-feather is rather longer than the second. The tail, of which the longest feathers measure three inches, passes about eleven lines beyond the tips of the closed wings. The tarsi are very short, measuring little more than half an inch; the claws are long, slender, and sharp. The beak measures five lines from the forehead, is very thick and strong at the base, and conical in form, the upper mandible bending down a little at the tip: the nostrils are covered by short hairs inclining forwards.

This species varies greatly in its plumage at various periods of the year, and under different circumstances of age and sex; so much so, that the differences of opinion respecting this and some other allied species, that formerly prevailed, and do not yet appear thoroughly cleared up, were very excusable; we acknowledge, for our own part, to feel still some remains of scepticism as to the fact of the red-breasted and brown Linnets being identical, on account of their appearing always so much smaller in the former state.

In its adult summer-plumage, the male Linnet is a beautiful bird: its colours are lively, and softly shaded one into the other. At this period the forehead, and great part of the breast, are brilliant scarlet, or poppy-red, shining with metallic lustre; the crowns of the head, nape, and ear-coverts, are greyish-brown; upon the top of the head, each feather is darkest along the shaft, giving a mottled appearance: the back and scapulars, the greater and lesser coverts of the wings, and the edges of the tertials, are bright bay. The quill-feathers of the wings are black, bordered along the outer web with pure white: this border is, on the fifth and four succeeding feathers, so wide as to form a large white spot. The region surrounding the eyes, and the base of the beak, are pale rufous-brown, the rest of the chin, and a narrow collar beneath the ear-coverts, white, with a few brown spots. The bright red of the breast is softly shaded into rufous on the sides of the breast and flanks, and the rest of the under parts are pure white. The tail is black, with white edges to both outer and inner webs; the upper tail-coverts blackish-brown, broadly edged with white. The under surface of the wings exhibit the broad silvery margins of the inner webs. The beak is lead-coloured at the base, and dusky at the tip ; the iris hazel ; the legs reddish-brown. This is the plumage of the height of summer, after time has worn off the fringes of the feathers, and left their colours distinctly visible, of which we have now several specimens before us.

After the autumnal moult, the red feathers of the breast and head are bordered with brown, the chesnut feathers of the back obscured with dusky shades, and paler edges, and the flanks streaked with dusky along the shafts of the feathers.

The females present a very different appearance. Their upper plumage is dusky brown, the feathers upon the wings, back, and scapulars, broadly edged with chesnut brown : the feathers upon the top of the head and ear-coverts are edged with brownish-ash : the chin and a narrow collar extending beneath the ear-coverts, dirty white. The whole under parts of the body are rufous-brown, with broad dusky streaks along the shafts of the feathers. The quill-feathers of the wings and tail, are the same as in the male, but there is less white upon the outer webs of the wings. The female is believed seldom or never to acquire the red colours upon the head and breast that distinguish the males.

The female of this species is considered to be smaller in size than the male ; and we have frequently remarked, that some males look smaller than others, which may account for the different dimensions given of this species in the works of different authors.

Young birds of the year resemble the female ; but, even in the nest, professed bird-catchers distinguish one sex from the other by certain tints of their plumage.

Birds brought up from the nest are said never to acquire the full colours of the adult male at liberty ; and adult males, if caught in full beauty and caged, do not regain, after moulting, the spring colouring they before possessed.

This species is the *Fringilla canabina* of Linnæus.

The egg figured 110 belongs to the Linnet.

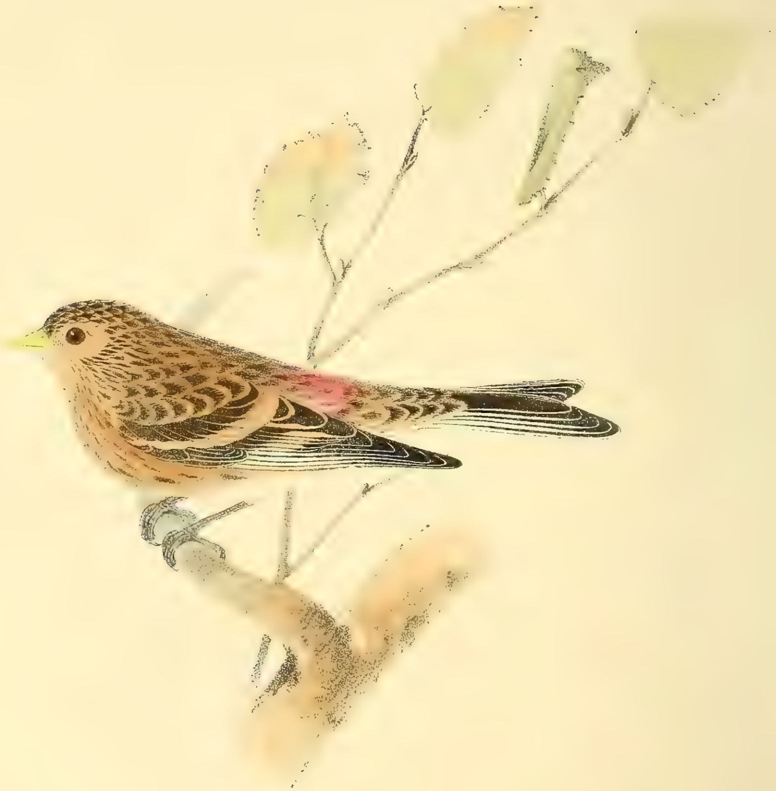


PLATE CXI.

MOUNTAIN LINNET.

LINARIA MONTANA. (*Ray.*)

THE northern parts of Europe and Asia include the countries in which this lively and pretty Linnet is most abundant, and in which the greater number of them are reared and pass the summer season. At this period it is said to be met with in the Arctic regions in mountainous places, where no trees occur, and where the largest products of the vegetable kingdom are stunted shrubs. It is found also in Norway, Sweden, Lapland, and Siberia. These birds are abundant in the Orkneys, according to the account of the Rev. Mr. Law, in his Fauna Arcadensis, and of Mr. Salmon. From these gentlemen we learn that the Mountain Linnet is a permanent resident in those islands, building amongst the heath or young corn. The same is stated by Mr. Dunn, in his Ornithologist's Guide to Orkney and Shetland; who says of this species, that it is, as far as he is aware, the only Linnet that breeds in these countries, over which it is pretty numerously dispersed. In winter it visits stack-yards, in company with buntings and sparrows, in large flocks.

In Shetland, according to the observations of Mr. Edmonston, in a list of the birds of those islands published in the Zoologist, the Twite, or Mountain Linnet, is resident and very common.

Descending farther towards the south, we find this species in Scotland, a country peculiarly adapted to its taste on account of its wild uncultivated mountains, barren or partly clothed with stunted shrubs,—especially in the northern parts. In Sutherlandshire, according to Selby, these birds are generally distributed: and the Rev. G. Gordon, in his Fauna of Moray, speaks of them as occurring in flocks, at the elevation of four or five hundred feet above the level of the sea at the Gedloch, five miles south of Elgin.

The Mountain Linnet is also met with, in summer, but probably to less extent, in some of the northern counties of England. It has been found in the breeding-season in Yorkshire, Staffordshire, and Derbyshire, but has not been at present traced further south in this country in summer. This being the case, it is a subject of surprise at first sight to find this species residing permanently so far south as the mountains of Switzerland; and still more so, when we learn from Mr. Drummond, that in the islands of Crete and Corfu the Mountain Linnet is common and a permanent resident. It is probable that in these instances the temperature of the climate, owing to the greater elevation, as regards Switzerland, or other local causes, may be on a parallel with that of more northern countries at the same season; otherwise, we could not account for the non-appearance of this species, during the summer, in the middle and south of England, and indeed throughout the rest of Europe, no part of which extends further to the south than the latitude of Crete.

On the approach of winter, the Mountain Linnet leaves the most northern parts above enumerated, and descends southward, spreading over the southern parts of Sweden, England, Germany, France, and Italy. In England they arrive about the end of September, and are observed to flock with the common linnets, whom they resemble much in their manners and food. In the southern parts of England they are, however, far from numerous; and we should be inclined to think the same must be the case in Holland and Germany, since this species was not known to Temminck at the time of the first publication of his Manuel; neither is it included in some editions of Bechstein's Cage Birds. It appears, indeed, that in Germany and Holland this species is not known either in summer or winter, being spoken of by Temminck as a bird of passage only, passing and repassing in spring and autumn.

In their manners and movements these birds are very lively and quick; in lightness of flight and agility they are surpassed by few. In character they are sociable, and constantly unite in flocks, in company with other small birds. Their song, consisting of a few hurried syllables, is pleasing, especially when heard among the barren rocks of the dreary north; but is inferior to that of the linnet. Their call-notes, which they frequently utter when on the wing, are peculiar, and may readily be distinguished from those of other linnets by a practised ear.

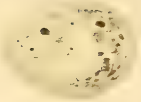
This species, according to Mr. Edmonston, "is very destructive to corn in winter, and to turnips, cabbages, &c., in summer. As soon as the latter plants appear above ground, the bird pulls them up, and nips off the seed-leaves, and the field remains strewn with the fragments of the young plants. I have often shot them in this act, and found their crops stuffed with the seed-leaves of cruciferæ. This destructive property in the Twite renders regular watching of the turnip-fields, during the two or three days the plants are coming up, absolutely necessary. They collect in very large flocks in winter; I have killed," he continues, "eighty at three successive shots: twenty at the first, sixteen at the second, and forty-four at the third."

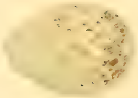
Besides the leaves of plants, the food of this species consists of seeds, especially rape, of which they are very fond; they also feed, together with the linnets, on various small seeds of weeds and low plants; when caged, moss-seed is much liked by them.

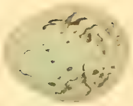
The situation chosen by the Mountain Linnet for its nest differs from that of others of its family, it being almost invariably placed upon the ground: it is usually found among heath or long grass, rarely, if ever, in bushes. The nest is constructed externally of dry grass, moss, and fibrous roots, and neatly lined with hair, wool, or feathers. The eggs are pale blue, or bluish-white, with a few dots and lines of lavender and black: such is the description given by various ornithologists, agreeing perfectly with a specimen obligingly supplied to us by Mr. Yarrell.

The entire length of this species, when alive, is four inches and three quarters: the wing measures two inches eleven lines, and the tail extends one inch and a quarter beyond the wings, when closed: the second quill-feather of the wing is the longest. The tail is much forked, the middle feathers being five lines shorter than the external ones: the tarsi are seven lines in length, and the expanse of the foot nearly an inch and a quarter.

In the adult male of this species, the head, nape, back, and scapulars are black, bordered with pale rufous-brown. The greater coverts of the wings, the bastard wing, the secondaries and tertials, the upper coverts and two middle feathers of the tail, are black, edged with pale rufous-brown: on the tips of the greater coverts, and part of the outer web of the secondaries and tertials, the brown border is broad enough to form a bar. The quill and tail-feathers are black, with white edges, broadest towards the base. The lower part of the back is garnet red, shading into the brown colour of the upper tail-coverts. The chin and sides of the face, and upper part of the breast and flanks, are pale







rufous-brown; the two former plain, except the ear-coverts, which are finely streaked with greyish-brown, and the latter are streaked with dusky lines along the shafts: the rest of the under parts are white. The iris is dusky, the legs nearly black. The beak is small in size; it is in summer lemon colour, in winter yellowish-white.

Very little change is perceptible in the colour of this Linnet at different seasons, except that the red upon the rump is less brilliant in winter, and spotted with dusky.

In the female and young of the year, the rufous-brown edges of the feathers are paler, and the central dark parts dusky, instead of black: the rump has no tint of rose colour, but is tessellated with two shades of brown, like the rest of the back. The beak is paler in colour, and has a dark tip.

The Mountain Linnet has often been confused with the common linnet, and the two redpoles; but besides the difference of its colouring, this species may always be distinguished from either by its different flight, manners, and form. In its manner of flying, it is light and noiseless, often sustaining itself in the air by fluttering its wings so quickly as to render them almost invisible. In its form it is much more slender than that of the linnet or the redpole, and its tail longer in proportion. It is a cheerful, lively, and active species.

This species is the *Fringilla mantium* of Gmelin; and the Twite of Montagu.

The egg of the Mountain Linnet is figured 111 in the plate.

INSESSORES.
CONIROSTRES.

FRINGILLIDÆ.

PLATE CXII.

REDPOLE.

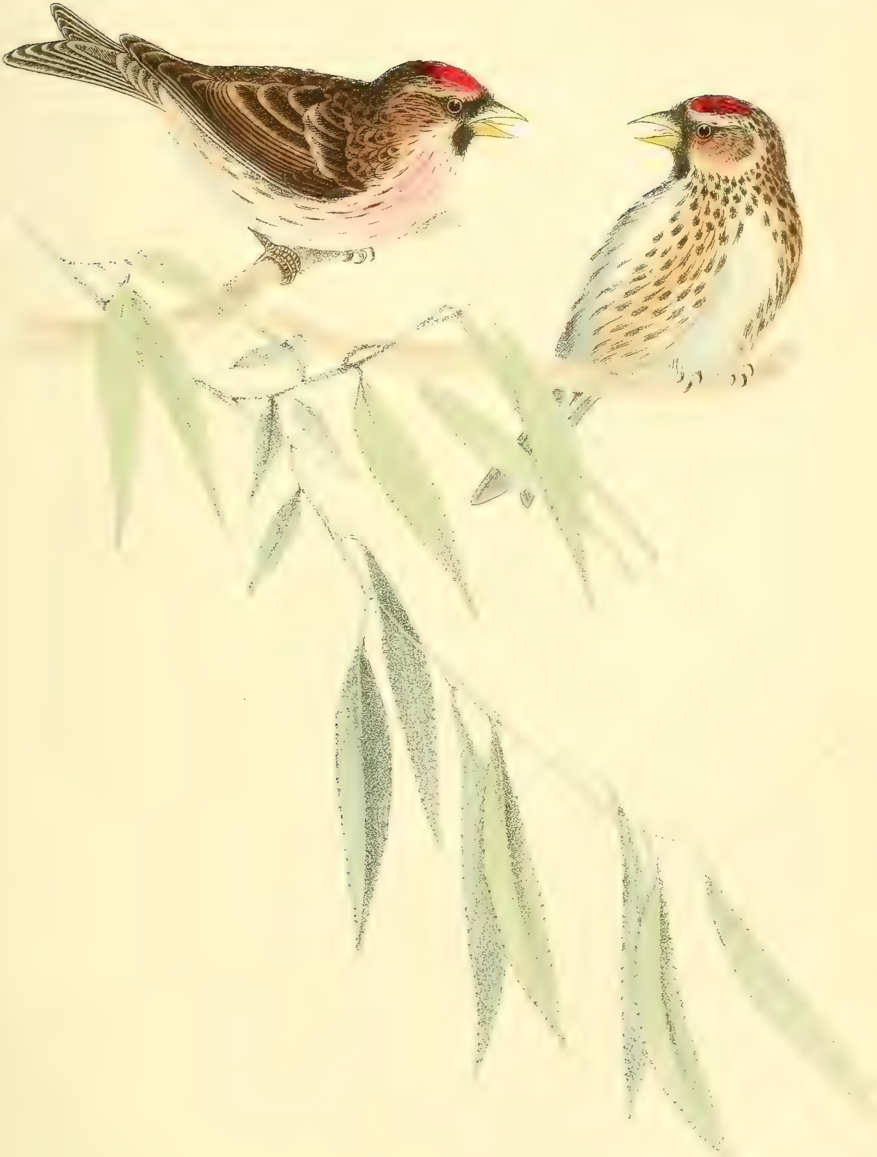
LINARIA MINOR.

The lively and amusing little species the subject of the present article, is the smallest of our British linnets, and the most gay and familiar of them all. The northern parts of the globe are the residence chiefly of this little species, which it is found to inhabit *permanently*, in favourable situations, the countries comprised between the 53rd and 60th degrees of north latitude: and even farther northward.

In the southern parts of England the Redpole is only known as a winter migrant, appearing in October, or November, as soon probably as food becomes scarce in their more northern quarters; for although the fur countries of North America are not altogether deserted, even in the coldest weather, according to the observations of Dr. Richardson, yet a southern movement takes place. At this season, namely, winter, numbers extend their migrations to the south of England, to France, Germany, and even Italy. We find, however, no mention of them among the birds of Corfu or Crete, it is therefore probable that their range does not at any time extend southward beyond the continent of Europe.

With the winter habits of the Redpole in this country, many observers of nature must be well acquainted. They

P 112



appear at all seasons to prefer copse wood and plantations of birch and alder, on the outskirts of woods; especially in the vicinity of marshy ground, small streams and rivulets. In such localities they may be often seen in November, in company with linnets, titmice, and siskins, feeding upon the seeds of the above named trees. Passing through a spot of this description on a bright day, in the middle of November, our attention was arrested for some time by their active and eager movements in search of their favourite food. As we approached the trees where they were flocking, from which a narrow stream alone separated us, the linnets who were feeding with them, more shy than the Redpoles, immediately flew off and descended to the ground, where they continued to make their repast among the thistles ; but the Redpoles remained quite undisturbed by our presence, and as if altogether unconscious of our being so near them ; nevertheless, the low alders, among which they were regaling themselves, being close upon the bank of the little stream, were not more than three yards from us ; and quite within reach of limed twigs, if we had been provided with such things. They were all busily picking out, as it seemed, the seeds of the cones, which hung plentifully upon the otherwise naked branches ; and we could hear the snapping and rustling made by them, as they picked out one by one these hidden treasures.

These are among the most fearless of little birds ; we say fearless because their regardlessness of mankind cannot be attributed to dulness or want of energy, since they display much susceptibility and affection among themselves, and unceasingly contend for their own rights and privileges when caged.

In their actions, these little birds are lively and quick, and when busied in picking out seeds from the pendant bunches of alder, &c., they place themselves in various pleasing and graceful attitudes, much resembling the actions of the titmouse tribe. While feeding, a continual chattering is kept up among these busy little creatures, interspersed with shriller notes, so that their presence may often be detected by the ear alone. It is not very easy to disturb them from their repast, and even if fired at they will presently return to the same place, and recommence their search for food.

Besides the seeds of the above mentioned trees, these little Redpoles feed on those of various kinds of thistle, the dandelion, &c.; on those of some kinds of cruciform plants, such as the turnip, and the seeds of mosses. In summer they vary their food with insects and the buds of trees, by which latter practise plantations sustain much injury.

Although not found in the southern counties of England, during the summer season, this little species does not retire far northward, being met with throughout the year in Yorkshire, and other northern counties; and still more plentifully in Scotland, where, according to northern authors, their usual places of resort, during the breeding season, are the banks of streams, where birch-copses abound, especially in hilly and rocky districts; or the brushwood that skirts the foot of mountains, or fringes the banks of mountain streams.

The nest of the Redpole, as described by different authors, is variously placed: some are found near the ground in willow or alder stumps, or among the branches of heath and other low bushes; occasionally more elevated in the branch of a hazel or thorn, or even in more lofty situations. It is formed of dry grasses and moss, lined with willow down, or the feathers of mountain birds, such as the ptarmigan, &c. The eggs, in number from four to six, are pale greenish-blue, spotted at the larger end with reddish-brown, and sometimes a few hair-like lines of a darker colour, brown or black.

Yorkshire, above mentioned as the most southern county in which the Redpole habitually breeds, is not, however, invariably the limit: since Mr. Hewitson mentions instances of its being found in Derbyshire, Nottinghamshire, and Warwickshire.

In a notice of birds that frequent the Isle of White, contributed to the Zoologist by the Rev. C. A. Bury, a circumstance is mentioned which seems to prove that even a more southern situation is sometimes chosen. That gentleman says, "I have frequently met with the Redpole in Newchurch marshes in winter: and I have in my possession a nest, containing two eggs of this little winter visiter, taken in Shanklin Chine, May 17th, 1843. The boy who found it, an experienced bird-nester, was at a loss to identify it, though he knew of another resembling it. This second nest was taken by some other person. I could not obtain a sight of the parent birds, but the boy's description corresponded with that of the Redpole. The nest and eggs perfectly coincide with those described by Mr. Yarrell: the former is lined with the catkin of the willow, and was built in an alder, hard by a stream which flows down the Chine."

In Norway, Sweden, and Russia this species is found throughout the year; also in some parts of Siberia, and as far east as Kamtschatka. In the fur countries of North America, as before observed, many remain during the winter. In America, according to the naturalists of that country, Redpoles descend in very severe seasons, as far southward as Pennsylvania.

Redpoles inhabit and breed in the Orkneys, according to the Rev. Mr. Low: but they are not mentioned by Mr. Edmonston as inhabitants of Shetland, in his Fauna of that island. They are found in Iceland; and individuals have been met with on the wing a few miles from Spitzbergen.

The Redpole is a bird of neat, and even handsome appearance, and a great acquisition and ornament in an aviary. Fresh caught specimens may be readily accustomed to a cage, and appear almost unconscious of their loss of liberty. They are very sociable with other birds, and will live in great harmony with most small species. But if an individual of their own species is brought near, or put into the same cage, their pleasure is expressed in most lively and pleasing gestures, erecting the feathers of the crown, and often affectionately caressing one another with their little beaks. This great sociability towards their fellows renders it very easy to catch a number of them as soon as one is secured for a call-bird. Instances have been known of their breeding in confinement, but these are rare.

Being in want of a living specimen for examination, while in the course of writing on the subject of the Redpole, we purchased one in London, on the 17th of June, and took it home with us. Its cage was frequently placed in the garden, where the lively notes of other birds encouraged it to chirp also, and we occasionally heard its call echoed by sounds very similar. Now the trial was to be made, whether the Redpole inhabited Surrey in summer or not. With this view we listened and watched with much interest, and not long without success.

One morning the alarm was given that a wild Redpole had been seen upon the outside of the cage, contemplating the little prisoner within. This was joyful news to a naturalist, and we believe no true ornithologist will laugh to scorn the pleasure we experienced on the occasion. In the course of the day, the visit of the wild bird was repeated, and he even came accompanied by one or more little companions of the same species; sometimes alighting upon the top of the cage, sometimes only answering the notes of satisfaction uttered by the little captive, from a neighbouring tree. This proof that Surrey is not without its Redpoles, even in the middle of summer, for it was still June, was very agreeable to us, and furnished us with another testimony in favour of an opinion before expressed, that many birds supposed to be local or rare, need only to be sought with a little perseverance in order to be found. Our next object was, to catch one of these strangers, which, with a little patience, we shortly succeeded in doing.

The entire length of the Redpole seldom exceeds four inches and a half. The wing, from the carpus to the tip, measures two inches six lines: and the tail extends about ten lines beyond the tips of the closed wings. The tarsus measures about six lines; the feet are small and delicate, and the claws remarkably sharp. The beak is thick at the base, and drawn to a point: the nostrils and base of both mandibles, are covered with fine hairs directed forwards. The tail is much forked, the middle pair of feathers being nearly six lines shorter than the outer. The weight of this little species is, according to Montagu, two drachms and a half.

The plumage of a beautiful male taken soon after the moulting season, was as follows: the beak yellowish-orange with a dusky tip: the feathers encircling the beak so broadly edged with yellowish-brown, as almost to obscure their dark brown bases: the forehead crimson-red, inclining to garnet colour. On the side of the face, nape, and scapulars, the feathers are dusky, very broadly edged with yellowish-brown, and presenting beautifully tesselated appearance. The wing-coverts are dusky; the two lower rows tipped with rufous-white, forming two bars across the wings: the spurious winglet and quill-feathers dusky, very narrowly edged with rufous-white; the secondary and tertial-feathers the same in colour, with their edges rather broader; the quill-feathers of the tail the same colour as those of the wing; the lower part of the back is mottled with dusky and white, the rump slightly tinged with rose-colour; the upper coverts of the tail dusky, edged with pale-brown. The feathers on the upper part of the breast are delicate rose-colour, those nearest the chin broadly fringed with rufous-white: the rest of the under parts are pure white, the flanks tinged with rufous. Some of the white under coverts of the tail have dark marks along their shafts, those on the flanks also. The eye is dusky, the feet and legs dark-brown.

As the feathers become worn by time and exposure, those that surround the beak lose their light edges and become dusky, the rufous fringes upon the breast disappear and leave the red and white more conspicuous; and the upper parts of the plumage become from the same causes, of a darker tint. In this state, it corresponds with the figure of the adult male in the plate,

The female has the same colours as the male, except upon the breast, which seldom or never exhibits any of the red tint; but has dusky streaks along the shafts of the feathers; as represented by the second figure in the plate. In size she is rather smaller than the male, and more slender in form.

Like the linnets, these birds lose in confinement the colours that distinguish them when wild: after moulting, the male does not regain the beautiful red upon the breast, that part becoming rufous-white; and the red of the crown changing mostly to orange, or even olive-green.

The egg figured 112 is that of the Redpole.

Pl. 113

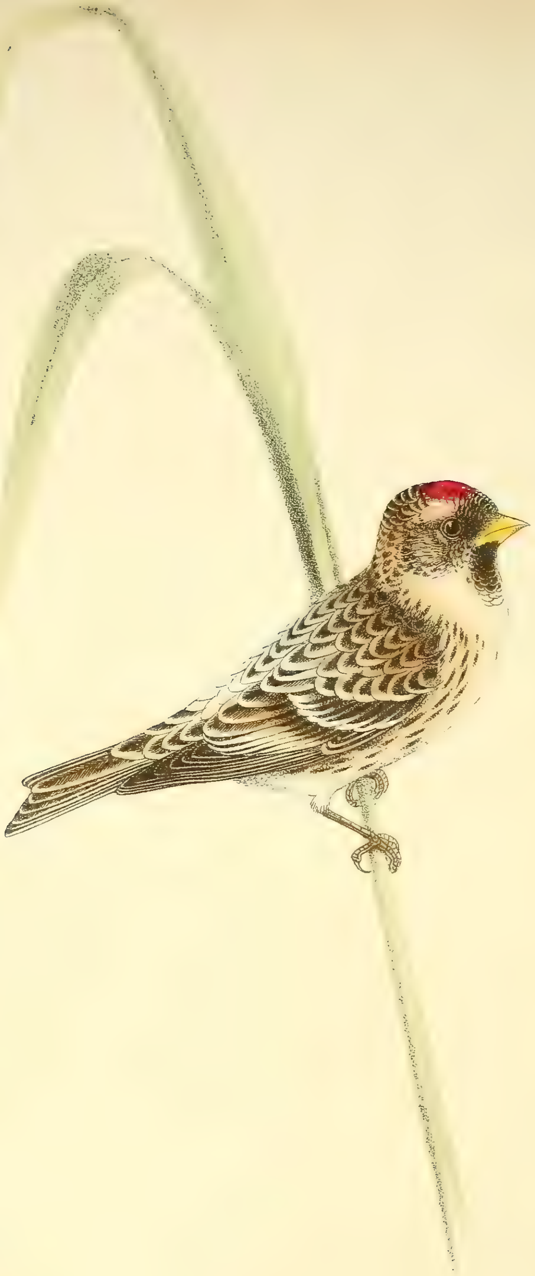


PLATE CXIII.

MEALY REDPOLE.

LINARIA BOREALIS.

This species is an inhabitant of the northern parts of the globe, as its trivial name *(borealis)* implies. It is found both on the old and new continents, but is chiefly confined, according to Temminck, to the regions situated in and about the Arctic Circle. It is the opinion of that author, that its appearance in our more temperate climate can only be considered, like that of many other rare birds, accidental. It is an inhabitant of Japan and Greenland, according to the same author, who, in the third volume of his "*Manuel d'Ornithologie*," speaks of having received specimens from those regions, exactly similar to individuals that are, from time to time, captured in our latitudes.

As an inhabitant of North America, this species has long been known; but it was not until lately recognised as identical with our British straggler; it is now, however, so considered by the chief of our ornithologists.

Both this species and the lesser one, before described, are common to America, and are there also considered as two distinct species; and described as such by the Prince of Musignano, by Dr. Richardson, and other authors.

In relative proportions, we believe no marked distinction is to be perceived between the two species, namely, the *L. borealis* and the *L. minor:* the principal difference consists in the size, and in the tints of the plumage. In size the northern or Mealy Redpole exceeds our lesser and more common species considerably, some of them being as large in appearance as the common linnet. In the form of its beak the *borealis* resembles the lesser species, the greater size observable being only in proportion to its other dimensions.

In habits and manners the two species are said to bear great resemblance to each other, feeding probably on the same kinds of food; and associating, at least in its accidental visits to this country, with the lesser Redpole and the siskin.

The appearance of the Mealy or northern Redpole is very irregular in England, as to time and place. They have been met with during some winters in tolerable abundance; and intervals of some years elapse before they are again plentiful. In the winter of 1829, they are said to have been very numerous, which was a season of remarkable severity: in the spring of 1836, they were again seen. Their appearance so far to the south seems, therefore, due to the low temperature of the atmosphere, and the consequent difficulty of procuring food in their native regions.

The Mealy Redpole has never been known to breed in this island, although individuals have occasionally been seen late in the spring.

We are, fortunately, able to give our subscribers a representation of this rare egg, from a specimen in our own possession. This has sufficient resemblance to the eggs of the linnet tribe in general to identify it as belonging to the genus, and yet differs in its details from all of them. It measures eight and a half lines in length, and six and a half in breadth, and is rather blunt at the smaller end. In the ground colour it is pale greenish-blue, and is sprinkled over with pale but distinct spots, chiefly confined to a zone around the larger end. These are of a reddish-brown colour, some inclining to lilac. The texture of the egg is nearly without polish.

This rare egg is represented by figure 113 in the plate.

PLATE CXIV.

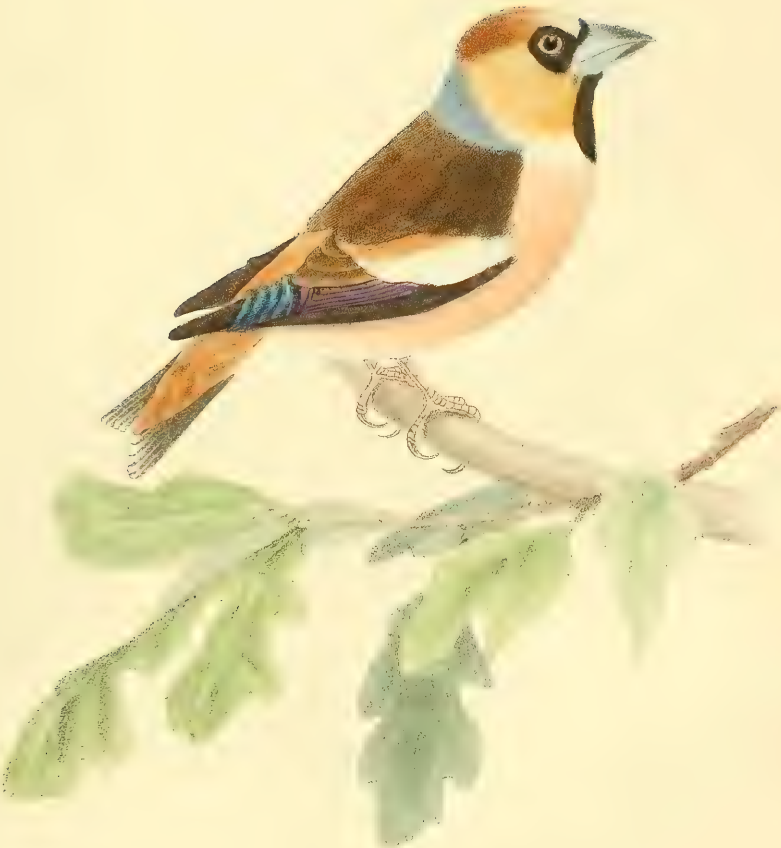
HAWFINCH.

COCCOTHRAUSTES VULGARIS.

UNTIL within a few years, the history and habits of the Hawfinch, as regards its residence in this country, were but little understood. Bewick, Montagu, Selby, and other British authors, speak of it as a winter visitor only. The later researches of some persevering naturalists have, however, proved that this bird, although far from commonly distributed, is to be found throughout the year in certain favourable localities. It appears to be a bird of shy and retired habits, and is chiefly found to frequent, in summer, woods, forests, and retired places, such as Windsor and Epping Forests, &c.

The first discovery of the nest and eggs of this species, (which established the fact of its breeding in this country) was made, we believe, by Mr. Doubleday of Epping, who having, on various occasions, seen individuals during summer, at last succeeded in discovering several of their nests. Other naturalists, residing in favourable situations for observing the habits of these birds, concur in the opinion expressed by Mr. Doubleday, that they are permanent residents in that forest, appearing equally plentiful at all periods of the year.

On this subject we may quote the following observations of J. G. Barclay, Esq. of Walthamstow, who says, "This



comparatively rare species first came under my notice about the winter of 1825, but it was not till 1837 that I was aware of their being resident, and rather numerous in the neighbourhood. During the winter and early part of that year, four or five of these birds were pretty constant visitors in my father's garden, and others were occasionally observed flying over. On the 17th of May, we discovered a nest situated in an apple-tree, in a retired part of the garden, about ten feet from the ground; and the old birds, though very shy, might be occasionally observed about. The hen sat very closely on four eggs, after I had secured the fifth for my collection, and on the 3rd of June hatched one young bird only, which left the nest on the 18th, but was not seen afterwards. . . . Being anxious to ascertain whether this nest was only an incidental one, or whether the bird constantly bred in the neighbourhood, I started one evening (on the 24th of March) to search in a spot which I knew to be a favourite resort of the Hawfinches, situated on the borders of the forest, abounding in a growth of lofty timber, interspersed with fine old hawthorn and yew-trees. I was speedily rewarded by the discovery of two nests, one containing three, the other one or two eggs, both similarly situated about twenty feet from the ground, amongst the forked boughs of the old hawthorns: we also observed the commencement of another nest in a neighbouring tree, very similarly placed, and all within a few yards of each other.". . . "During the autumn, we pretty much lost sight of our interesting visitors, except their being occasionally observed feeding in company with whitethroats and some other birds, on the ripe berries of the mespilus, a fine specimen of which tree stood near the house: but during the following winter, that of 1837-8, which was remarkably severe, a numerous colony frequented our garden, as many as from twenty to thirty being generally seen in the morning, feeding on the berries of a favourite holly. On the least alarm, they quickly dispersed to the topmost boughs of the neighbouring lofty trees, where they remained, if not further molested, till the danger had passed, and then returned quickly to their meal."

"In the winter season, and especially during severe weather, these birds are frequently seen in the neighbourhood of the forest, in large flocks of from fifty to a hundred or more, feeding on the seeds of hornbeam, to which they appear to be particularly partial; and as spring advances they disperse into retired spots to breed. I am inclined to think that their shy habits, together with their being a very local species, has led to their having remained so long unobserved: and I much doubt their numbers being increased by a winter migration from other countries, their apparent numbers, at that season, being probably only the result of their congregating together, and becoming more bold in their approach to our gardens and orchards."

Previous to the investigations of the two gentlemen just mentioned, so little had been known respecting the summer residence of this species in England, that one specimen only was spoken of by Latham, as having occurred in the summer months: and in the second edition of Selby's Illustrations of British Ornithology, allusion is made to their breeding in Windsor Forest.

The Hawfinch doubtless inhabits permanently other parts of England, where woodland and forest districts are to be found of a similar character; and it is to be hoped that other naturalists, conveniently situated to make the investigation, will be enabled to add to the limited localities at present known.

These birds are said to belong chiefly to the warmer countries of Europe, namely, France, Italy, and Germany; where they also breed. In Belgium, says M. Julien Deby, Hawfinches migrate in spring and autumn, but pairs and small flocks are seen all through the winter. They only nestle in the wildest parts of the country. These birds reach in their summer migration as far as Sweden, and parts of Russia, according to Montagu; and Temminck includes them amongst the inhabitants of Siberia and Japan. In Corfu, according to Mr. Strickland, this bird is a winter visitor, but irregular in its appearance, being some years scarce, and in others very common. It does not, however, breed there, but goes northward in the beginning of April. In Mr. Drummond's list of birds of the island of Crete, this species does not occur; but it has been met with in Egypt in winter.

In deference to the opinion above alluded to, of Mr. Doubleday and Mr. Barclay, that this species does not increase or diminish in numbers at different seasons in the localities with which they are respectively acquainted, but are in fact natives and permanent residents there; it appears probable that the many straggling groups that are to be met with in various parts of England during the winter half of the year, are foreigners, bred in more northern parts, and induced through cold or dearth of food to visit these islands. Their appearing here at uncertain times, and in greater numbers in winters remarkable for their severity, appears to favour this supposition. These presumed foreigners are also much more generally diffused, occurring commonly in many wooded districts, in various parts of England. There is hardly a county from Yorkshire to the southern coast where they have not been seen, and obtained at various times during, and often simultaneously with, the first severe frosts. They are rare, according to Selby, in the northern counties of England, nevertheless a few captures have been made in Scotland. They are not mentioned in a Fauna of Moray, by the Rev. G. Gordon; neither do we find this species in Mr. Edmonston's Fauna of Shetland.

"The principal food of this species in Epping Forest," says Mr. Doubleday, "appears to be the seed of the hornbeam, (*Carpinus betulus*), which is the prevailing species of tree in the forest: they also feed on the kernels of the haws, plum-stones, laurel berries, &c., and in summer make great havock amongst green-peas in gardens in the vicinity of the forest." Amongst the peculiar characteristics of this bird, Mr. Barclay notices its thick and powerful beak, formed for breaking hard kernels, and fruit-stones. "The muscle," he says, "by which this is effected, is wonderfully developed, being turned backwards over the skull, which is ridged over the eye to receive it, almost to the root of the beak. Their bite is of course severe; and I have frequently noticed the ground, beneath the tree on which they have been feeding, covered with twigs and leaves, cut off by their powerful beaks as if with scissors."

These birds are at most periods remarkably shy. "In this trait," says Mr. Doubleday, "they exceed any land bird with which I am acquainted; and in open places it is almost impossible to approach them within gunshot." In very severe weather we have, however, noticed them to be far more approachable, rendered bolder doubtless by scarcity of food; or (supposing these winter straggling flocks to be of foreign birth), from their having been reared in remote or less inhabited parts.

A pair of these birds were for some time living in the possession of J. Fletcher, Esq., of Ruxley Lodge, Surrey, which we believe had been reared from the nest in that county. The female, which survived her mate, was kindly lent to us for some time in order to observe its habits. She was very quiet and tame, and never while with us uttered any vocal sound, but we observed that she often made a grinding harsh noise with her beak, similar to that produced by the same organ by some of the parrot tribe.

The Hawfinch is a heavy looking and clumsy bird, far exceeding in bulk many whose measured dimensions are the same. In entire length, it is about seven inches; the wing measures four inches from the carpus to the tip of the quill-feathers. The first three quill-feathers are nearly equal in length, the fourth two lines shorter; the succeeding four or five feathers, which constitute a great peculiarity in this bird, are of an unusual form, resembling when separated from the wing, a bill-hook or battle-axe, and the secondary quills lying next to them are square at the ends: these feathers are all differently coloured from the rest of the wing. The tail, which is slightly forked, exceeds the closed wing about an inch. The beak is remarkably thick and strong; it measures three-fourths of an inch from the base to the tip, half an inch in depth at the base, and rather more in width from side to side, at its junction with the feathered part of the face; the nostrils are not visible, being hidden by the reflected short hairs that fringe the base of the beak.

The plumage of the adult male of this species is as follows: —Beak blue in summer, lightest at the base, and dark horn colour at the tip: in the winter it is pearl-colour, with the tip black. The beak is entirely surrounded with black, which occupies the chin and throat, and extends in a narrow line across the forehead; the lore is also black, as well as the eyelids, and a narrow line surrounding them. The eye is dull pink. The forehead and cheeks are yellowish-buff, the top of the head bright bay; the nape of the neck is bluish-grey; the back and scapulars are umber-brown; the tertial-feathers of the wing, and some of the larger coverts of the same, partake also of the brown colour of the back. The lower part of the back, and upper tail-coverts, are yellowish-brown; these are very long, and reach to the end of the tail. The longer quill-feathers of the wing are dusky; the rest are purplish at the tips, with reflections of steel-blue; white spots occupy part of the inner webs. Some of the greater coverts of the wings, and a few of the lesser near them, are whitish, forming a spot or speculum, when the wing is closed. The breast and under parts are pale brown, tinged with blossom-colour, lightest on the belly. The tail-feathers are black, with a portion of white on their inner webs.

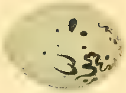
The female has the same distribution of colours, but they are generally paler; and the dark spot beneath her chin is rather brown than black, and smaller in extent. The legs and feet of both sexes are flesh-colour, tinged with brown.

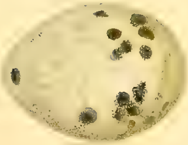
The young birds before their first autumnal moult are yellowish-brown, on their upper parts tinged with olive; beneath pale dull brown, with transverse irregular dusky bars; the throat is more or less mottled with black, indicating its more mature state.

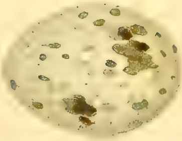
"The nest of the Hawfinch," according to Mr. Barclay, "resembles much that of the bulfinch, though considerably larger, being composed of an abundance of twigs and small dead sticks, closely put together, and lined with garden bass and fibrous roots. The eggs are of an olive-green ground, marked and blotched with dark brown."

These eggs vary not much in appearance, and all bear the same characteristic appearance. The upper one represented in the plate, was drawn from a specimen lent us by Mr. Yarrell, many years ago, for our quarto work; it was spotted and streaked with dark olive and grey, and measured eleven lines and a half in length, and eight and a half lines in diameter. The eggs are mostly four or five in number.

The eggs marked 114 and *var.* in the plate, represent those of the Hawfinch.







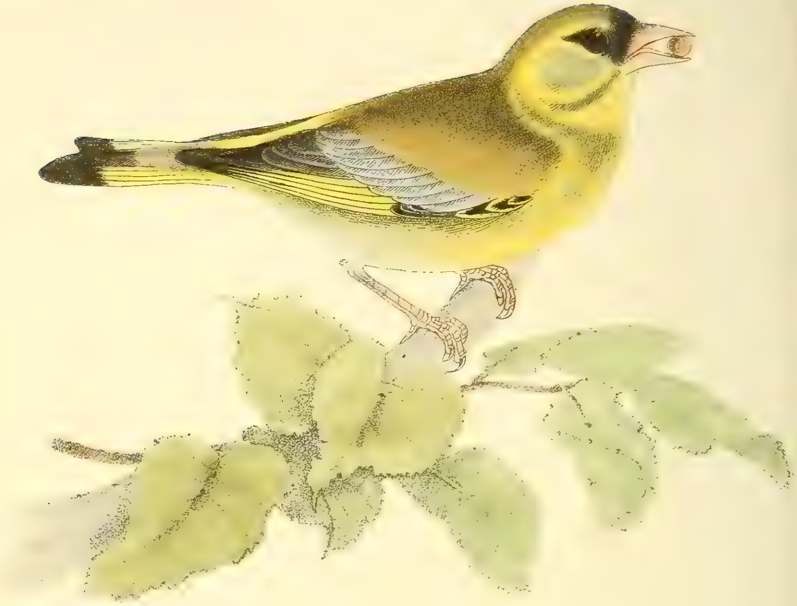


PLATE CXV.

GREENFINCH.

COCCOTHRAUSTES CHLORIS.

THE well known Greenfinch, with its congener the Hawfinch, are the only two species of the genus *Coccothraustes* which belong to our island; they are chiefly distinguished from other *Fringillidæ* by their large and powerful beaks, their short tails, and clumsy appearance.

The Greenfinch is very generally dispersed throughout England, and common in most sylvan localities, such as the outskirts of woods, parks, and gardens; also tall hedgerows, where the whitethorn or maple have been allowed for some years their natural growth, uninjured by the destructive but necessary lopping of the hedger's axe.

This is in summer a sprightly bird, whose peculiar note may often be heard for hours together, uttered from the tallest spray of the hedge, or from the bough of a tree a little elevated above the rest of the copse; the long drawn note *tway!* will readily distinguish it. Sometimes its frolicsome mood (for even the Greenfinch can be frolicsome in the season that fills all hearts with gladness) is exhibited in curious flights, turns, and evolutions, rising in the air, fluttering, tumbling, and descending to the same bough many times in succession, as if at a loss how best to express its happiness.

The localities above mentioned as frequented by Greenfinches at most seasons of the year are also those that are chosen for their summer building spots. The station itself varies greatly; some nests are placed in tall hedges, or isolated thorns; some are concealed in the thick ivy that may now and then be seen crowning the withered arms of an old pollard tree, where, for want of the means of climbing higher, it has grown into bushy heads. They may also occasionally be found to build in gardens on the outskirts of villages and towns, probably attracted by evergreen shrubs, in which this species seem much to delight for that purpose. The partiality for evergreens evinced by the Greenfinch, has been also noticed by Selby, who describes this species as generally choosing its roosting place among holly bushes, or in the warm and sheltered retreat afforded by fir-trees.

The nest of the Greenfinch, always picturesque from the diversity of the materials employed, is rather large in proportion to the size of the bird; the outside is loosely constructed, commencing with a platform of slight twigs and bents, often intermixed with green moss; it is then usually felted with wool, within which is a lining of delicate fibrous roots, and finally horse-hair laid neatly round and round; the cup is rather shallow, and broad enough to accommodate the numerous family, which often amounts to seven. The most elegant nest we ever met with was one built by this species. It was entirely composed externally of a basket work of the seed stems of shepherd's-purse, (*Thlaspi bursa pastoris*,) still garnished with their pods; these were interwoven with the white wool of which the chief substance of the nest consisted, with their tufted heads projecting an inch or two from the nest on all sides; there was neither twig nor straw to destroy the beautiful effect; the lining was as usual fine roots and hair, and it contained seven eggs, greenish-white in the ground colour, dotted with lilac and dark brown about the larger end.

The eggs of the Greenfinch vary much in different nests, in size, form, and colour. Some approach very nearly in appearance to those of the linnet, but are larger in size; some resemble chaffinches' eggs in their markings and the roundness of their form, while others are long and pointed. The ground colour is greenish, bluish, or greyish-white; the spots are usually reddish-lilac and rufous brown, mostly disposed around the larger end; sometimes, however, the whole egg is mottled over, as in the upper figure in our plate.

The geographical distribution of the Greenfinch is extensive, being found from the western parts of Europe to the eastern confines of Asia; cultivated or sylvan districts being probably preferred throughout this vast extent, such being observed to be its peculiar choice in this country. In latitudinal extent it is found from Sweden and Norway as far south as the Mediterranean and its islands, including Crete, where, according to Mr. Drummond, it is very common. Whether this bird is stationary throughout the year in the more northern parts mentioned, we are not well informed, but are inclined to think not, at least not to the same extent as it is well known that in several countries situate more to the south there is a considerable accession to the numbers of this species in winter. In Shetland we learn from T. Edmonston, Esq. that the Greenfinch is a winter visitor only, in common with the snow bunting, the goldfinch, the linnet, &c. which implies that it leaves some more northern part at that season for the comparatively less unfriendly climate of that island. A southern movement seems also to take place with this species still further, since it is mentioned by M. Julien Deby that in Belgium Greenfinches flock in winter, but leave that country when the season is uncommonly cold. In England the changes of locality that take place among Greenfinches appear more impelled by scarcity of food than to be the effect of temperature. "During the summer months," says Mr. Hepburn, "Greenfinches subsist largely upon insects and their larvæ, as well as upon the downy seeds of the groundsel and dandelion, alighting adroitly upon the stems, bearing them to the earth, and feasting at their leisure. Turnip seed, and the seeds of chickweed, charlocks, and various grasses, also enter into their bill of fare, till the crops of wheat and oats begin to ripen, when they occasionally do some damage along the borders of the fields, but when the grain is cut and carried away, they search the stubbles in large flocks, which are fully as animated and as amusing in their habits as those of the grey linnet. Green linnets may be daily seen in our yards all the year round, though of course they are most abundant during the inclement months of winter, when they pilfer the exposed ears of corn from the sides of the stacks and search the cattle-yards, and by the barn door."

The intelligence which many small birds display in their intercourse with mankind, is very interesting and surprising. "In the spring of 1824, says a friend, (the Rev. E. J. Moor,) "a pair of green linnets built in the ivy porch of Boulge Cottage. I was one day watching the nest when the young ones were about half grown. While I was there the old one came with some food, and perched close to the nest; the young ones immediately set up a great chirping. Hitherto I had been quite concealed from the old bird; but the wind moving the ivy leaves, her eye and mine met, and the same moment she uttered a quick note, which was scarcely uttered before all the chirping instantly ceased—the young ones perfectly understanding the signal."

A parallel instance of the watchful care of a pair of Greenfinches for the safety of their young ones, came under our own observation. One day several little nestlings were caught in a field adjoining the garden; they were scarcely fledged, and could not fly; we put them in a small cage, which we placed in a low hedge, bordering the field where they were captured. It was not long before they were discovered by the parents, who immediately visited them, and appeared to bring them food. These marks of affection interested us, and fearing that where they were placed the young nestlings might become a prey to prowling cats, we gave them their liberty. The parents, however, appeared not yet satisfied respecting the safety of their young ones, for a short time after they were observed in the act of carrying one of them away; they were bearing it between them at about the elevation of a foot and a half from the ground, and in this manner were seen to carry it above fifty yards, namely, from the spot where the young birds were set at liberty, to the end of a gravel path, where they entered a clump of fir-trees. In what manner the parents supported the nestling was not very apparent, as the observers did not like to follow too quickly, lest the old birds should relinquish their burthen; but from the close vicinity of the three during their flight, it appeared as if they must have upheld it by means of their beaks. The other nestlings had apparently been conveyed away in the same manner, as none of them were to be found.

Besides the food above mentioned as the support of this species, Temminck includes the berries of the juniper, and we have observed that the scarlet hips, or pods of the rose, are frequently pecked at by Greenfinches. These birds may readily be caught under a sieve baited with barley, of which grain they are so fond that they will sit almost immoveable for a quarter of an hour close to the ground, feasting on this favourite grain; their manner of eating which, is by shelling or grinding it in their bill, by which means they leave the spot strewed with chaff; we have seen them so busily and quietly engaged in this occupation that they might be mistaken for fallen autumnal leaves, slightly agitated from time to time by the wind.

The entire length of the Greenfinch, or Green Linnet, is about six inches and a half; the wing measures from the carpal joint to the tip three and a half inches, and has the first three feathers nearly equal in length.

In the adult male the head and back are yellowish-green, inclining to ash colour upon the coverts of the ears ; the lore and a narrow band across the forehead are dusky; the lower part of the back and breast are yellow, the flanks tinged with greenish-grey. The greater quills are yellow on the upper half of their outer webs; the greater coverts and tertials greenish-grey. The middle feathers of the tail are dusky grey, the rest have the basal half yellow, the tips greyish-black ; the rest of the under parts not described are lemon-yellow. The iris is hazel; the beak pearl flesh colour; the legs and toes pale flesh, tinged with dusky about the claws.

The female is less bright in plumage, having none of the pure yellow that adorns the male. The young nestlings are greenish-grey on their upper parts, and have dark shaft streaks about the throat and breast, upon a greyish-white ground.

The egg of the Greenfinch is figured 115 in the Plate.

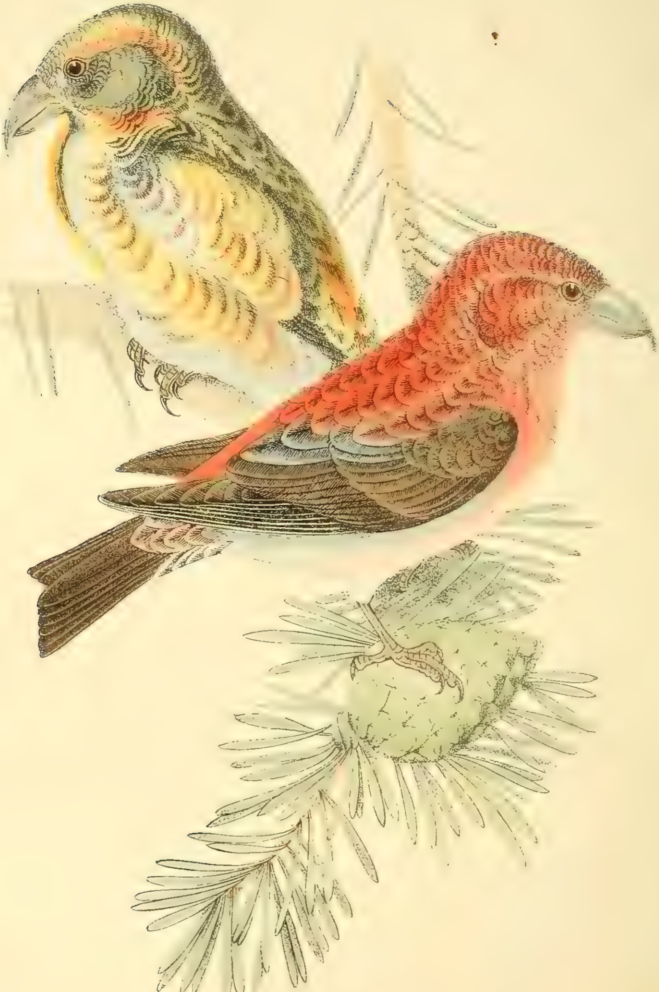


PLATE CXVI.

COMMON CROSSBILL.

LOXIA CURVIROSTRA.

THESE curious birds, singular alike in form and habits, in their changes of plumage and times of breeding, have been long known in this country as occasional visitants, whose peculiarity of appearance and manners did not fail to be observed and commented upon, even centuries ago, when ornithology was a study little thought of or cultivated. Their habits and times of appearance in this country are still somewhat obscure and ill defined, but from Temminck and other continental authors, whose facilities of observation are more favourable, many particulars may be learned, which will enable us to unite some of the unconnected links of their history.

The Common Crossbill inhabits the northern parts of the Old World, as far towards the Arctic regions, as the trees necessary to their subsistence exist. It is found in the north of Sweden and Norway, in Russia and Siberia. From such northern parts, these birds spread themselves over Europe to its centre, being plentiful in Poland and Prussia, and common in many parts of Germany. In Holland and France it is said to be less frequently met with, and is still more rare in Switzerland. According to Mr. Audubon, this species is also common to parts of the American continent, most abundant in Maine, New Brunswick, and Nova Scotia; it is also found in Pennsylvania.

In the pine forests of Silesia, Bohemia, in the Hartz mountains, and in the Thuringer Wald, the Crossbill is also indigenous, and in seasons when fir-cones abound, they are seen to congregate in such considerable flocks, that it is difficult to conceive from whence they arrive so suddenly, and in such numbers.

These birds appear upon the European continent as well as in Britain, to have very roving and wandering habits, appearing in various places in great numbers, and disappearing again without any apparent cause, and with little regularity of time or season. Doubtless food is the inciting cause of all their erratic movements, as severities of temperature appear to have little effect upon this species. In these wandering movements they have been observed, like many other gregarious birds, to have a leader, or sentinel, whose alarm note, or call, either warns his companions of the approach of danger, or collects such as have strayed from the society. Their manner of flight when on the wing is arched, like that of the finch tribes; it is also quick and rapid. While feeding they frequently utter a chirping note, and occasionally a louder cry, which sounds like *tsoc! tsoc!* also a soft one resembling *gip*, or *kip*. On the continent, where much more pains are taken than in this country to catch various small birds for the table, and for other purposes, a Crossbill that utters the monosyllable *tsoc* freely, is much valued as a call-bird to attract others.

In their motions, as well as in their appearance, these birds much resemble the parrot tribe; they climb with equal facility upwards or downwards, and make frequent use of their beaks for that purpose.

The food of the Crossbill consists principally of the seeds of fir-cones, which their long and curiously constructed beaks enable them to extract from beneath the scales by which they are protected, and which the powerful lateral motion with which their beaks are endued, enables them to raise with facility. It is a pleasing sight in winter, when the fir-trees are covered with snow, to see a group of these gay birds in their many-coloured plumage fluttering among the tops of the fir-trees, in diligent search for their food. The larch, the alder, and various other trees also supply their food, and they have been observed to resort to patches of thistles, and pick the seed from them.

These birds breed freely in the pine forests that cover great part of the north of Europe. Their nests are placed usually towards the tops of the trees, and at a considerable elevation. It is composed of fine twigs of the fir-tree or stalks of heath, with grass, straws, and green moss, the inside is lined with the dead wirey leaves of the fir, intermixed warmly with feathers. The eggs of the Common Crossbill are white, sometimes tinged with blue or green; they are spotted chiefly about the larger end with violet and deep claret-red, or brown; some are said to resemble the eggs of the greenfinch, but are usually larger, others resemble the specimen figured in our plate; they are from three to five in number. The seasons of building and incubation appear to be very irregular. All accounts agree in assigning a very early period in the year for these occupations; even while snow remains upon the ground. Continental authors speak of the young being fledged in March; incubation must therefore have been commenced in February or January; in higher northern latitudes, a somewhat later period is assigned; in England the same peculiarity has been observed with regard to the times of breeding.

The Common Crossbill, although very many years since recorded and considered as a British winter migrant, has not been until lately, in comparison, ascertained to breed in this country. Many instances have, however, come to light, and probably many young birds of this species are annually bred here, but their building upon lofty trees, and producing their young at so early a period in the year, have rendered the search for their nests often unsuccessful; among recent accounts of the Crossbill breeding in England, we may notice a communication from Mr. Lewcock of Farnham, to the Zoologist; it is to the following effect:—"Four or five years ago, the Scotch firs in Holt Forest were cut down, to allow more room for the growth of the young oaks; when the trees were felled, four nests of the Crossbill were found in their topmost forks; the nests and eggs had much the appearance of those of the greenfinch."

Another similar notice is from the pen of W. Jordan, Esq., Teignmouth. "These birds were very plentiful in the south of Devonshire during the winters of 1838-9, and on the 10th of April in the latter year, I saw a nest at Ogwell House, near Newton; it was built in a spruce fir-tree, and appeared to be constructed in a somewhat similar manner to that of the greenfinch. The male had been shot, but the female still continued to attend the nest." And in some notes on the Ornithology of Kent, in the same periodical, by J. P Bartlett, it is observed: "these curious and interesting birds visit the fir plantations in this neighbourhood in greater or less numbers, nearly every year, appearing in considerable flocks some years, in the autumn, while in others only a few stragglers are to be seen. Although I have myself never found a nest of the Crossbill, I have ascertained from good authority, the fact of their nidification in the fir plantations of Sir H. Oxenden, Bart., at Broome."

From innumerable accounts of the appearance of the Crossbill in this country and in Scotland, it appears that not a month in the year is without its record: we must therefore consider this as a local indigenous species, whose numbers are probably increased by accessions from foreign countries at various and uncertain periods.

These birds are easily reconciled to captivity, but we have been informed by dealers in birds, that they are very apt to pine and die in moulting. We possessed one, the individual figured in the upper part of our plate, for a short time, but it soon fell a sacrifice to the above-named cause. It was very fond of climbing about its cage like a parrot, by means of its hooked beak, and when at rest, sat usually in the position in which it is drawn. These birds will eat in confinement hemp and other small seeds, also barley; they are, besides, fond of the stones contained in the berries of the mountain ash, and of the hawthorn.

Being anxious to ascertain the taste of our living specimen, we offered it many things, among others a small fir cone in a green or fresh state; this was shortly after observed to have been pecked into shreds, and presented the appearance of the curious tufted productions frequently found upon briars and wild roses, caused by interruption in the ordinary flow of the sap, probably this was done in fruitless search for the seeds, which, in that state of the cone, had not yet come to perfection. The great force that can be employed by this species in the lateral expansion of its beak, may be experienced by taking a living bird into the hand (as we have frequently done) and endeavour to hold the beak close; the bird in striving to resent this infringement of its freedom, expands its beak laterally with such compulsion, as to force the fingers apart.

We also wished to ascertain whether the mandibles could be crossed over to the opposite side without violence, and found that the change could be very easily effected, but it did not appear to be so agreeable to the bird, as he would in a few minutes replace the mandibles in their usual form.

The curious power possessed by these birds, of expanding their beaks laterally, enables them also to obtain the pips of apples, of which they are very fond, by splitting the fruit in halves; in this manner great mischief is occasionally effected by them in apple orchards, which they sometimes frequent in the southern countries in great numbers.

It is remarkable that the mandibles do not in every individual cross on the same side; in some, the upper mandible inclines to the right, in others to the left. In young birds, while in the nest, they are not crossed at all, but are straight as in other birds.

It is said that the young birds while in the nest, are fed by their parents, with food prepared in their own crops; it is possible that this may be the case, as the early period at which the young are generally hatched, must render insect food a precarious provision.

The entire length of the Common Crossbill is about six and a half inches; the length of the wing, from the carpus to the tip, three inches and three quarters. The tail is slightly forked, and its feathers pointed; the longest extend about nine lines beyond the tips of the closed wings. The legs are short, not exceeding eight or nine - lines in the tarsus, the toes are thick and strong; the claws large, and sharply grooved beneath. The beak, the most remarkable feature in this bird, the form of which is best exemplified by the plate, measures ten lines from the forehead to the tip; the lower mandible is very thick at the base, measuring nearly six lines from side to side at the commencement of the feathered part; both mandibles are much compressed laterally towards the tip, and the upper one, which is the longest, terminates in a very sharp point; the nostrils are covered by small hair-like feathers.

The rich plumage of this bird varies infinitely; the wings and tail only preserving the same appearance at most seasons, but even these are bordered, after the autumnal moult, with narrow edges of olive, yellow, or red, which disappear towards the spring, from use or friction. The other parts of the plumage, including the head, back, and scapulars, upper coverts of the tail, and all the under plumage, exhibit such a diversity of shades of yellow, orange, scarlet, green, and olive, in different individuals, that authors have been greatly at variance in their accounts of the plumage that might be assigned to differences of age or sex. Selby in describing a young male, says, " Upper and lower parts tile-red, intermingled with yellowish-grey: quills and tail greyish black, margined with yellowish-white. This is the plumage of the male from the first moult till he is one year old, when he acquires the dress of the adult bird; in which state the tile-red has given place to ash-grey, deeply tinged and tinted with sulphur and lemon yellows."

The same opinion had been previously expressed by Temminck, in his Manuel, where he assigns to adult and aged males a plumage composed of grey, olive, green, and yellow, in which the former appears to predominate. This author refers the red plumage entirely and exclusively to young males, and supposes that they assume it at their first autumnal moult, and relinquish it on their second, when little more than a year old.

The great diversity of appearance presented in this species, renders it doubtless very difficult to ascertain precisely to what age different descriptions of plumage may be assigned.

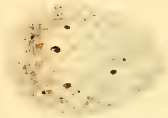
We are, however, not inclined on this subject to agree with Temminck and other authors, with regard to the red plumage being assignable only to the very young male bird, since observations of our own tend to contradict strongly the supposition.

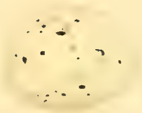
Among many individuals that we have examined at various times, was one which led us to be sceptical on the point in question, and indeed offers a strong proof against it. This specimen was apparently an old bird, agreeing in every particular with Temminck's description of the adult and aged males above mentioned. Its plumage was green, grey, and olive intermixed; but on closer examination, the bird was found to be in the act of moulting; many new feathers about the back and mantle were still in their quills, their extreme tips only projecting from the encircling tubes: these tips were, to our surprise, of a brilliant red, plainly proclaiming a change, contrary to all the systematists, from green to red. It cannot be objected that this was a young bird, making his first change from nestling plumage to the feathering of a year old, since the plumage that he then wore had no affinity with nestling plumage, nor exhibited any marks proper to that age.

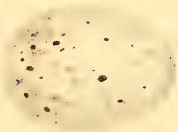
These observations inclined us to take part in the very opposite opinion of Nauman on this subject, that the red plumage is that of the adult instead of the young male, and is not perfected until after the lapse of several years, during which the bird undergoes several changes from green to yellow and orange, and finally to red.

According, therefore, with this view, the upper figure in our plate is a male of about two years of age; the lower, or red bird, three or more years. Females are said never to assume the red plumage, but to wear a simple dress of green, grey, and yellow; young birds in the nest are dull green, with the centre or shaft of each feather darker, somewhat resembling the young of the greenfinch.

The egg of the Common Crossbill is figured 116 in the plate.







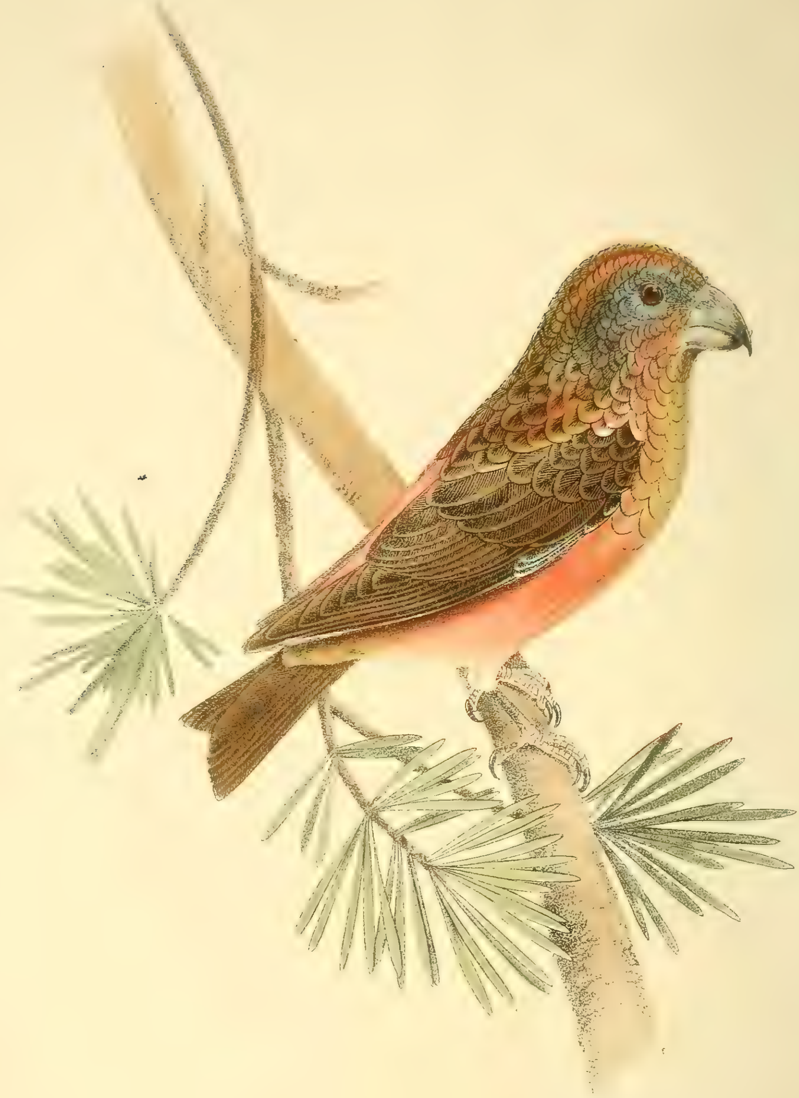


PLATE CXVII.

PARROT CROSSBILL.

LOXIA PYTIOPSITTACUS.

THE northern parts of Europe and America are the native regions of this bird: but whether it is found at the farthest extent of the fir-covered hills of those regions is uncertain. This species is very frequently met with in Russia, Prussia, Poland, and Sweden, in which countries it may be looked upon as indigenous; but in Holland, France, Switzerland, and Britain, it can only be considered a migratory species, much more rare in its appearance, and much less numerous, than its more common congener last described.

Forests of pine and other fir-trees are said to be the favourite abode of these Crossbills: they are generally observed to remain in the tops of the trees, seldom descending to the ground except when in search of water to satisfy their thirst. They also roost at night in large companies, in the manner of rooks; and are said even to return from afar, in order to resort to a favourite spot for that purpose.

The Parrot Crossbill builds chiefly in lofty forest-trees. Its habits have been observed by Bechstein in Voigt and Osterland, between the rivers Orla and Roda, where he has frequently met with nests of this species. In 1819, their nests were seen in May and June: in 1821, they had already eggs as early as February and March; and they were even observed beginning to build in the middle of December. The nests were placed on the branches of lofty trees, at the elevation of from sixty to a hundred and twenty feet from the ground, and were so placed that the snow could not fall into them.

The nest of this species is chiefly built of slender fir-twigs, and is from one to three inches in thickness; some are lined with dry grass, or the dead leaves of the fir. The eggs are four or five in number, and are said to be larger than those of the Common Crossbills, in colour bluish white, with violet and dusky spots, chiefly disposed around the larger end. The young are hatched after a fortnight's incubation, and are believed, like the former species, to be fed with seeds prepared in the crops of their parents.

The habits, manners, and food of this species so nearly resemble those of the Common Crossbill, as to need no further description: their call-notes are also much the same.

The Parrot Crossbill may be distinguished from the common species by the greater size of its beak and head. The beak also differs in form, being thicker and stronger; the mandibles appear likewise shorter in proportion, and when viewing the beak sideways the tip of the under mandible does not show itself above the ridge of the upper one, as it does in the preceding species. The body of this bird is also greater in bulk, as may be proved by comparing their respective breastbones.

The plumage of this bird passes through the same gradual and remarkable changes that are performed in the Common Crossbill; and with regard to this species, Temminck adopts the more recent views of ornithologists, namely, that the red plumage (as we endeavoured to prove in the case of the preceding species) is that of the mature male bird, the yellow and orange that of the younger males;

and that the plumage chiefly composed of green and grey belongs to the female, from which the young birds of the year may be distinguished by their striated appearance, as well as by immaturity in the texture of their feathers.

Our plate represents, according to this supposition, a male bird of about two years old, whose next change will probably mature his plumage, so as to resemble the colouring of the lower bird in the plate of the Common Crossbill. In the Parrot Crossbill, as well as in the former species, the wings and tail are dusky, bordered after the autumnal moult with green, yellow, orange, or red, according to the age of the individual; these colours agreeing with the prevailing colour of the back and scapulars.

These birds moult in September, October, or November. The young of the year moult about six weeks after their first flight. In confinement the adult males lose their red plumage in moulting, and become orange or yellow.

The entire length of this species is seven inches and a quarter. The wing measures from the carpus to the tip four inches; and the tail, which is forked, extends one inch beyond the tips of the closed wings. The legs are short and stout. The beak measures nine lines from the forehead to the tip, and seven or eight lines in depth. The eyes are small and brilliant, in colour hazel. The colour of the beak is dusky grey, yellowish at the base of the lower mandible; the inside of the mouth flesh-red. The legs are brownish flesh-colour.

PLATE CXVIII.

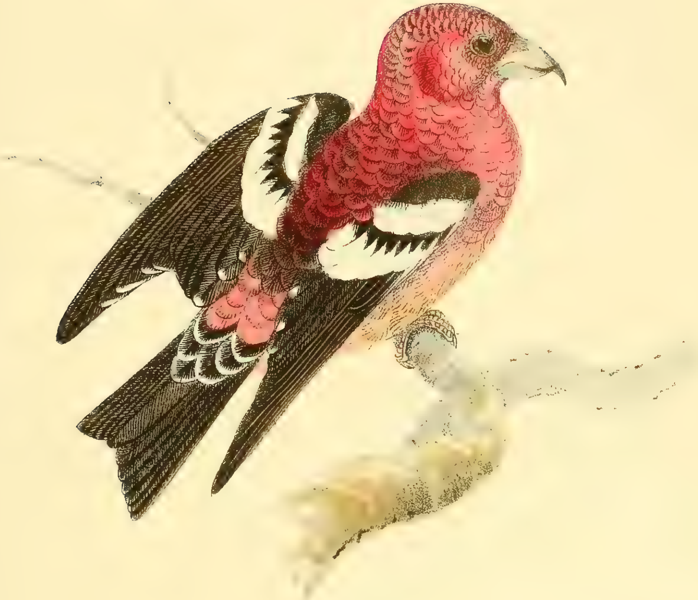
WHITE-WINGED CROSSBILL.

LOXIA LEUCOPTERA. (*Gmel.*)

THIS small species is less common, and consequently less known in Europe, than the two preceding ones. It is a native of the northern parts of America, and is found in great numbers in the countries about Hudson's Bay, according to Temminck, where it inhabits extensive forests of pine. In summer its range extends, according to Dr. Richardson, as high as the 62nd degree of N. latitude, and probably higher. In winter these birds visit in flocks the shores of Lake Ontario, Canada, and the northern portions of the United States; but, like the other two species of Crossbill, they are very irregular and uncertain in their migrations.

The localities in which these birds are chiefly found are low, marshy forests of pine and other firs, and their food consists almost entirely of the seeds procured from their cones; they feed in flocks, and fly in scattered parties from tree to tree, uttering a twittering or chirping note.

The White-winged Crossbill is stated by the Prince of Musignano to build on the branches of pine-trees; the nest is composed of grasses, cemented together with earth, and lined with feathers; the young birds are able to fly in June, and remain with their parents, accompanying them in their autumnal movements and migrations. According to the same



authority the eggs of this species are white, marked with yellowish spots.

Besides America, this species is said also to be a native of the northern parts of Asia; but it does not appear to have been ascertained that any are bred in Europe, although a few individuals are occasionally seen in Sweden, and flocks have been met with in various parts of the pine-clad districts of Germany. These are usually considered to be stragglers; but whether from America or Asia is doubtful.

Some few captures of the White-winged Crossbill have been made in England, where it has been known as a rare straggler for many years, and considered as a species distinct from its two congeners, from which, indeed, its smaller size and the transverse white bars upon the wings readily distinguish it.

In the third volume of the *Manuel d'Ornithologie* of Temminck, the adult male of this species is thus described. All the principal parts of the body, consisting of the head, neck, and breast, are a fine crimson-red: a blackish band crosses the nape of the neck, and a similar one occupies the middle of the back. The middle of the breast and belly are greyish-brown; the sides of the head are sometimes speckled with black, and a line of that colour crosses the forehead, and passing through the eye, loses itself in the coverts of the ears. The wings and tail are black; three of the tertial feathers, those placed nearest the body, have a white spot upon their tips. The greater and lesser coverts of the wing are broadly tipped with white, forming two bands. The beak is black, the legs and feet brown.

In the specimen from which our plate was taken the lower part of the back is crimson, the upper coverts of the tail dusky, bordered at the tip of each feather with a narrow line of white, and some of the primary quill-feathers are similarly edged.

The female, according to Temminck, has the upper parts of the body greenish-grey, the feathers bordered with yellowish-green; the rump is pale yellow; the under parts of the body are greenish-grey, marked with longitudinal blackish lines, the middle of the belly whitish: this sex has also the white bars upon the wings.

The entire length of this bird is about six inches; the wing measures three inches and a half from the carpus to the end of the longest quill-feather; the first three quill-feathers are nearly equal in length. The beak measures eight lines from the forehead to the tip, is much thinner than in the preceding species, and much compressed laterally.

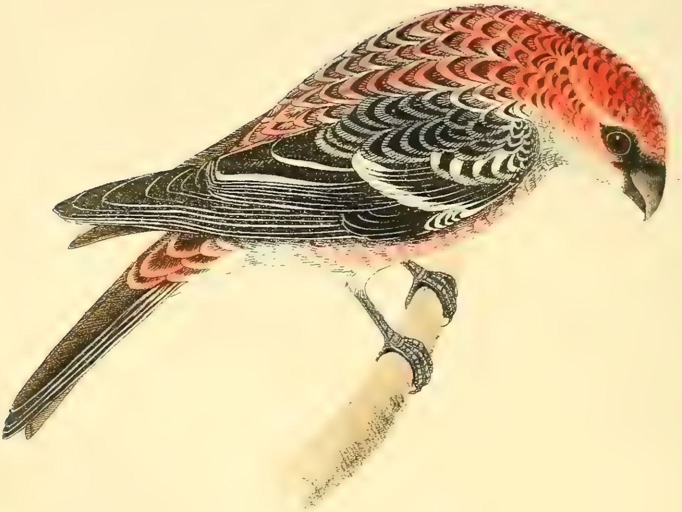


PLATE CXIX.

PINE BULFINCH.

PYRRHULA ENUCLEATOR.

Of this family, which includes five or six European species, we only number two as British; one of which, the subject of this article, is a very rare bird in this country; the other well known and tolerably common in many wooded districts. The several members of this family, according to Temminck, are chiefly confined to the northern part of the globe, including the northern and temperate parts of Europe, Asia, and America. In manners and habits they much resemble other families of the finch tribe, but surpass most of them in the great strength of their large and arched beaks, which enable them to break shells of considerable hardness.

The Pine Bulfinch is a native of the Arctic regions, and is considered to be abundant in the northern parts of Europe, Asia, and America, as far north as wooded tracts extend. They inhabit in summer the northern parts of Norway and Sweden, Finland, and Lapland, and the north of Russia. In America they are found from Norton Sound and the country of Analaschka, to the borders of Hudson's Bay. From these countries they descend in winter southward over every province of North America, just below the polar circle. In Europe they also spread at the same season southward, occasionally visiting Russia, Poland, Pomerania, and Silesia.

As a winter migrant, the Pine Bulfinch is irregular in its appearance; but probably, if carefully traced, its seemingly erratic movements would be found to coincide pretty accurately with the greater or less degree of cold for which particular seasons have been remarkable. From continental authors we learn that in 1790 these birds appeared in such numbers near Riga in October, and remained until the middle of December, that several thousand pairs were daily caught. In 1793 and 1798, and again in 1803, they also appeared in great numbers; but from that time not many were observed until 1820, when they spread over almost every middle province of Germany.

In the forest districts of Scotland these birds are occasionally seen, and a few individuals have been shot from time to time in England. In France they are considered very rare, but have occasionally been met with in some parts of Switzerland, and in the north of Italy.

The Pine Bulfinch is a bird of sociable habits, usually found in flocks or families, and mostly preferring the society of its own species. They inhabit forests of fir, or tracts of brushwood, in which shrubs that produce berries in abundance, such as the juniper and others, are to be found. They fly high when engaged in lengthened flights, or during migration, and at such times alight on the tops only of lofty trees.

In consequence of their being reared in remote and uninhabited wilds, the Pine Bulfinch betrays little fear of mankind, and consequently falls an easy prey to their wiles. When fired at, they appear unconscious of the danger that threatens them, and will suffer one after another of their party to fall a sacrifice without betraying any alarm; so that six or eight have been known to be shot out of one tree before the rest took flight; it is consequently very easy to entrap them by means of snares and other devices.

This beautiful species is said to be a very desirable cage-bird, its sociability and other attractive qualities being very engaging. It is also considered a sweet songster, and sings even during winter in a piping and sweetly modulated strain: during the spring its vocal powers are still more frequently displayed.

The food of this Bulfinch consists of the seeds of the pine, spruce, and other fir-trees, which they obtain as soon as the scales of the cones begin to expand; also the berries of many other sorts of trees and shrubs: they also devour, like our common species, the newly expanding buds.

This species, the largest of the European members of the Bulfinch family, measures in entire length between seven and eight inches: the wing is four inches and a half from the carpus to the tip, and the longest feathers of the tail exceed the closed wings about an inch and a half. The beak measures half an inch from the forehead to the tip, and is about the same in depth. The third quill-feather of the wing exceeds the others; the tail is forked, and the outermost feather but one on each side is the longest.

The plumage of the bird from which our drawing is taken has the head, nape, cheeks, and sides of the neck, pale crimson; the feathers of the back and scapulars grey towards the base of each feather, deepening into black towards the tip, and deeply fringed with bluish-crimson, producing a variegated or mottled appearance. The greyish feathers of the lower part of the back and upper coverts of the tail also bordered with crimson-red. All the feathers of the wing black, the quills and secondaries narrowly bordered with white, the tertials more broadly; the two first rows of wing-coverts very broadly tipped with white, forming two conspicuous bars; the smaller coverts edged with grey; the tail-feathers dusky black, edged with reddish-grey. The chin, belly, and under parts greyish-white; the beak blackish-grey, the eyelids, lore, and a space beyond the eye black, as well as the radiating hair-like feathers that cover the nostrils and sides of the beak.

This specimen appears, according to the recent views of ornithologists, to be an adult male, in which opinion Temminck, in the fourth volume of his Manuel, seems to coincide.

The adult female, of which we have also examined a specimen, through the kindness of W. Yarrell, Esq., has none of the crimson tints that so much beautify the male, but is still a very handsome bird. Her head, nape, and ear-coverts, are bright honey-yellow, rump and upper tail-coverts the same; her chin is white, and all the rest of her upper and under plumage clear grey: her wings are dusky, bordered in a manner similar to those of the male with white: her tail is dusky, narrowly bordered with grey: legs and beak as in the male. This specimen was shot at Harrow in Middlesex.

Young birds of this species resemble the female; but the colours of their plumage are much obscured with olive and brown.

The nest of the Pine Bulfinch is described as much resembling that of our indigenous species, being composed of small twigs, and lined with feathers, and placed not many feet from the ground. The eggs are described as being white, and measuring about an inch in length.

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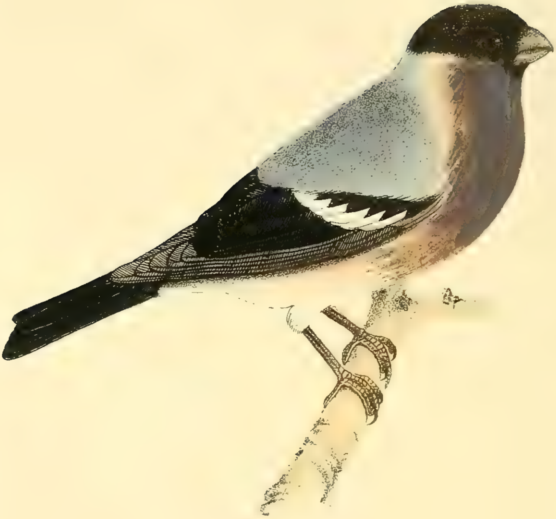


INSESSORES.
CONIROSTRES.

FRINGILLIDÆ.

PLATE CXX.

BULFINCH.

PYRRHULA VULGARIS.

THE well known Bulfinch is one of our most beautiful British Birds, and being attractive in its manners, and remarkable for docility and attachment to its possessor when caged, is a general favourite. This species is indigenous in the middle and northern regions of Europe and Asia. It is partial to woods and forests, and is consequently found to inhabit, in great numbers, the extensive forests of Germany. In its southern range this species extends throughout Europe, but is far less abundant towards its southern kingdom, and known in some only as a winter migrant. This is the case in some of the islands of the Mediterranean: "in Corfu," says Mr. Drummond in his list of the birds that frequent that island, "this species is rare, and seen only in winter." This is probably the southern equatorial limit of the Bulfinch, as it is not mentioned by the same gentleman among the birds of Crete. In Belgium these birds occur, and, according to Mr. J. Derby, nestle in extensive forests and wooded situations among the rocks. This bird is indigenous in Scotland, and is considered by the Rev. G. Gordon as much more common in Moray than the Goldfinch. In Shetland, from the information of Thomas Edmonston, jun., Esq., the Bulfinch is only a straggler. Temminck speaks of this species as being known only in Holland as a bird of accidental passage: it is, however, frequently taken there in snares and nets with other finches, but is not so common as many. We learn, also, from the authority just mentioned, that the Bulfinch is widely spread over the northern parts of the Asiatic continent, being found in Siberia, and as far eastward as Japan, where it appears to be common. In Ireland this species is, as may be expected, abundant in favourable localities.

In England the Bulfinch is generally well known, but abounds in some counties more than in others. In Kent it is said to be particularly numerous, the many wooded parts of that county being peculiarly favourable to its tastes and habits. It is common in Suffolk; and abounds in parts of Surrey. In the Isle of Wight it is tolerably abundant, according to the researches of the Rev. C. A. Bury.

In many of their habits Bulfinches differ much from other families of the finch tribe; they are not, like the generality of them, gregarious, even in winter, and are seldom seen in larger parties than may be supposed to have constituted one family. In winter and spring they are generally, if not invariably, seen in pairs; and so much is this the case, that they are believed to pair for life. At these periods they visit villages, orchards, and gardens, where their lively plumage, seen to advantage when the trees are divested of their leaves, is very conspicuous: they are, however, seldom looked upon as welcome visitors, except by the ornithologist, since their destructive habits in devouring the buds of trees are well known. In this respect they are considered the most mischievous of small birds; and, if undisturbed, commit great and irreparable ravages among fruit trees, especially the different kinds of the cherry, plum, and gooseberry: some gardens are so subject to the depredations of these birds that their owners are obliged to defer the spring pruning of the latter fruit until after their annual visit. In stripping gooseberry bushes a very systematic operation is carried on: the little destroyer perches upon a small branch near its intersection with the stem, and devours in succession as many buds as he can conveniently reach: these are mostly the fruit-bearing ones: those at the extremity of each branch, therefore, the leaf-bearing buds, remain untouched. Besides fruit-trees these birds devour the buds of the larch, birch, white and black thorn, and others.

During the other seasons of the year bulfinches feed upon berries of various kinds, and the seeds of fir-trees. We have observed them frequently among alder-trees very assiduously picking the seeds from their cones. When caged these birds are usually fed with hemp, rape, and canary-seed; they are also exceedingly fond of the pips of apples.

The wild note of the Bulfinch is a plaintive whistle. "Its song," says Selby, "is very soft and pleasing, but delivered in such an undertone as to be inaudible at a short distance, and hence few common observers are aware that it possesses a native song."

The capacity for instruction in these birds, and the perfection to which their song may be brought, are too well known to need more than a passing remark; but this education requires such constant trouble to instil, and such care to preserve uncorrupted, that none but their German teachers could have sufficient patience to accomplish.

The Bulfinch is a late builder, and seldom produces more than one brood in a season. Its nest, placed in a hedge or copse, and generally in a lonely situation, is composed of twigs, moss, and fine fibrous roots. The eggs, usually five in number, are of very handsome appearance; they are greenish blue in the ground colour, and spotted, in a zone around the larger end, with orange, lilac, and black.

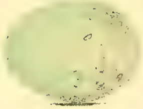
The entire length of this species is six inches and a quarter. The wing measures from the carpus to the tip three inches, and the tail extends one inch and two lines beyond the wings when closed; the tarsus, which measures seven lines, is shorter than the middle toe. The tail is slightly forked, the feathers rounded at their tips; the wing has the first quill-feather two lines shorter than the second, which is again slightly exceeded by the third and fourth. The short thick beak measures three lines and a half from the feathered part of the forehead to the tip; it is four lines in depth, and about the same in width.

The feathering of this bird is remarkably soft and silky, and the unity of colour in its several parts also contributes to this effect. The top of the head is covered by a hood of the most beautiful velvet black; the chin, region of the eyes, and eyelids are also black; the iris of the eyes hazel. The tail and its upper coverts are intense and glossy black, with purple reflections, the lower part of the back and under tail-coverts pure white. The wings have the quill-feathers dusky, the secondaries and tertials are, like the tail, black and shining; the greater coverts are black, broadly tipped with white, forming a distinct bar across the wing. The nape of the neck, back, and scapulars are bluish-grey; the sides of the face, breast, and flanks are beautiful vermilion, or Chinese-red; the rest of the under parts white. The beak is black; the legs purplish-brown.

The female Bulfinch resembles the male in most parts of her plumage, but her breast is pale pinkish-grey where that of the male is red; the nape of her neck is grey, her back and scapulars are greyish, deeply tinged with brownish-olive.

Young birds much resemble the female, but their head, wings, and tail, are dull and dusky, instead of black.

The egg figured 120 in the plate is that of the Bulfinch.



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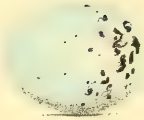

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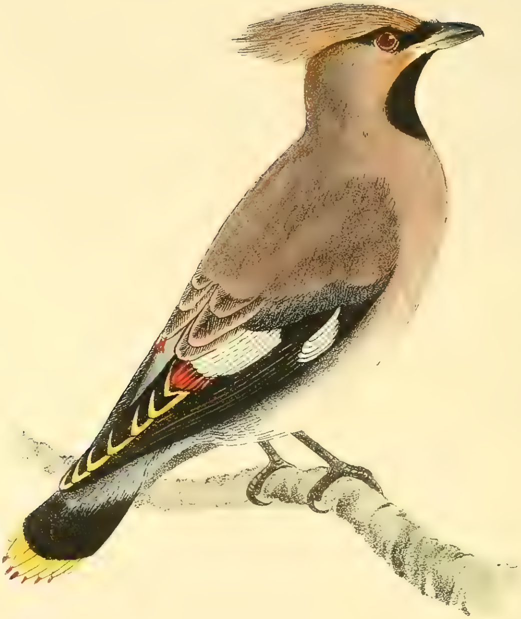


PLATE CXXI.

BOHEMIAN CHATTERER.

Ampelis garrulus. (*Penn.*)

The Bohemian Chatterer is a very beautiful and singular looking bird, approaching nearest in appearance to the jays and shrikes; in habits entirely different from either.

The silky texture of the feathering, and the remarkably bright colouring disposed about this bird, seem almost in contradiction to the fact of its being an inhabitant of the colder climates of Europe.

During the summer months the Bohemian Chatterer inhabits the Arctic Regions, from whence it only departs southward on the approach of the severest frost and snow. Russia, Sweden, and Poland, are then visited, until scarcity of food drives it into Germany, Switzerland, France, and Britain. In Silesia and Bohemia they are every winter regularly found in the forests with which those countries abound; they arrive in the latter part of November, and depart in March, although long continuance of cold weather has been known to detain them till April.

This bird is well known as an inhabitant of North America; and visits in winter the milder regions of that continent in the same manner that it does those of Europe.

In Germany, where superstition is indigenous, the appearance of the Bohemian Chatterer has generally been considered to foretell war, pestilence, or famine; and in some provinces bears the name of death-bird, or pest-bird, *Sterbevogel*, or *Pestvogel.*

In its nature this bird is rather dull and stupid, but gentle when caged, and patient. They live chiefly among themselves, and associate little with other species of birds. When one Chatterer is seen alone, it must have been by some unlucky circumstance separated from its friends, and thus the lonely wanderer will be found restless and roving about. In other circumstances they are only seen in the act of feeding, or perched on the branch of some tree, sitting close together.

The flight of the Chatterer bears much resemblance to that of the starling: they roost among the thickest branches of trees and bushes, and in windy weather seek shelter very near the ground, or hide in the crevices of rocks in rocky countries.

There is no bird more tame, or sooner reconciled to his fate in confinement than the Chatterer, provided he is well supplied with food (which his great appetite demands), and which consists entirely of berries of many kinds. When caged it is necessary to keep this bird in a cool room, as heat is hurtful to it; and it requires a constant supply of water for bathing.

Of the reproduction of the Bohemian Chatterer little is known, nor has its egg yet been described. These birds breed, it is believed, within the Arctic Circle, in holes among rocks, or in deep forests.

In countries where these birds arrive in numbers, they are caught for the table, and are said to be very delicious food, owing to a certain spicy flavour, and a pleasantly bitter taste; besides which their great and insatiable appetite fattens them and keeps them always in good condition.

Few winters pass in Scotland or England in which this elegant species is not seen more or less, sometimes in pairs, sometimes in small parties of eight or ten. They have been shot in many counties of England, even to the most southern parts, although there comparatively more rare. The Rev. Charles Bury, of Bonchurch, in the Isle of Wight, says, " A fine male of this species is now in the possession of Mr. Grapes, of Newport: it was killed about fifteen years ago, not far from Yarmouth."

Many other localities, too numerous to mention, are recorded by various naturalists, all tending to the same point, namely, that this Chatterer, although not regular or numerous, is a frequent visitant throughout England.

It does not appear that this species penetrates at any time much farther to the south than our island; as we are not aware of its being found either in Italy or Spain, or other countries in a similar latitude.

Dr. Richardson says of this species in America, that it is not known to retreat below the 55th parallel of latitude. On that continent the Bohemian Chatterer is found in flocks, amounting to several hundreds, which frequent forests and mountainous tracts, and feed upon the berries of the juniper, the alpine arbutus, the marsh vaccinium, and other northern shrubs of a similar kind.

The nest and eggs of this species escaped even the researches of the above named acute naturalist, who could only conjecture that it retires in the breeding-season to rugged and secluded limestone districts among the mountains, about the 67th and 68th parallels; nor could he obtain from the native Indians of those countries any certain intelligence on the subject.

Our own personal observations of the manners of these birds, have not been frequent or many, owing to their rarity; but we remember to have seen a pair of Bohemian Chatterers in the plantations about Claremont, in Surrey, in the month of January, 1837. They remained in that neighbourhood several days, and we saw them more than once, perched together in a mountain-ash tree, seemingly looking about for food, and taking no notice of our vicinity. This winter one was seen by a working man, who came running to tell us that, while standing in conversation with a neighbour, he saw a jay fly about, in size no bigger than a redwing; he farther described it as having yellow tips to its tail, and a bunch of loose feathers on its head.

An individual of the same species has more recently come under our own observation, and being near the same place where the one just spoken of was seen, was very probably the same bird. Being on one of the extensive meadows on the borders of the Thames near Chertsey, in Surrey, on the 17th of January, we observed a bird of singular flight and appearance, which we at once detected to be a Bohemian Chatterer. At first it sat upon the ground, erecting its crest, and looking around from time to time; it soon flew up with a hurried and peculiar flight, and alighted at a little distance upon a solitary thorn-bush, at that time very scantily furnished with berries. We had hardly lost sight of it before we heard a shrill whistle, like the noise produced by blowing into a key, followed by a trilling note or shake, both entirely distinct from the notes of any other bird, and perfectly agreeing with those assigned to this species. Several persons about the same place have mentioned to us, and exactly described, the same remarkable note, and have seen the same bird with its crest erect.

This Chatterer measures about eight and a half inches in length; the beak from the tip to the base is nearly six lines, and about five lines broad at the base, forming consequently a large or wide gape, well adapted to swallow berries of most kinds; the upper mandible of the beak is much notched about one fourth from the tip, and the under mandible has a corresponding groove on its edge, therein resembling the shrikes; the colour of the beak is black at the tip, and pale horn towards the base; the oval shaped nostrils are covered by short bristles. The iris of the adult bird is nearly blood red; that of young birds chesnut brown.

The legs and feet are strongly made; the part above the knee covered with feathers; the tarsus measures full eleven lines in length, the middle toe, including the claw, the same; and the hinder toe seven lines and a half; the front of the tarsus and upper part of the toes are scaled; the colour of the legs and feet black.

On the top of the head the Chatterer is adorned with a tuft of silky feathers of nearly an inch and a half in length, which lay backwards, and can be raised to a crest at pleasure; its colour is reddish grey, or roan. On the forehead and top of the head these feathers lay smooth, but towards their tips they are very loose and divided. The entire colouring of the head is also reddish grey, which extends over the neck, back, and breast, below which it changes to a mellow silvery grey, which extends over the belly and thighs. The upper part of the back and wing-coverts are brownish-ash colour; the rump is clear ash, becoming more pure on the tail-coverts.

The bristles that cover the nostrils, a band across the forehead, the lore, and a streak through and beyond the eye, also the throat, are jet black, the edges sharply defined. On the forehead above the black is a border of rust red, which decreases in intensity as it passes backwards. At the base of the lower mandible, and below the eye, are spots of pure white, which are separated from the cheek by a soft shading of rust red.

The primary and secondary quill-feathers are black, the first two or three entirely so, the rest marked upon the shaft near the tip with a line of bright lemon yellow, in some specimens the feathers are tipped with the same; three or four of the secondary quills, and as many of the tertials, are tipped with a wax-like appendage, or prolongation of the shaft, these are long, thin, spoon-like substances resembling coral, and lying side by side when the wing is closed; these in the adult male sometimes amount to nine in number, and the longest are about four lines in length. The tertials are purplish-grey, tipped with white; the larger wing-coverts are black, with white tips. The tail-feathers are ash colour at their base, black in the central portion, and bright yellow at their tips. In males of mature age the tail-feathers are also furnished with the same horny spoon-shaped appendages of bright red, before mentioned, these are never more than a line or a line and a half in length. The under wing-coverts are greyish, or pearl white, changing to grey and ash colour towards the tips of the quill-feathers. The vent and long under tail-coverts are bay, or reddish-brown.

The younger birds (which are more generally met with) have the ornamental feathers of the head much shorter, the yellow colour on the quills and tip of the tail much paler, and the red appendages smaller and less numerous on the wing, and entirely wanting on the tail.

The females are in all respects like the male, but their colours are paler and less defined. These birds do not moult before August or September, according to observations made both on tame and wild individuals.

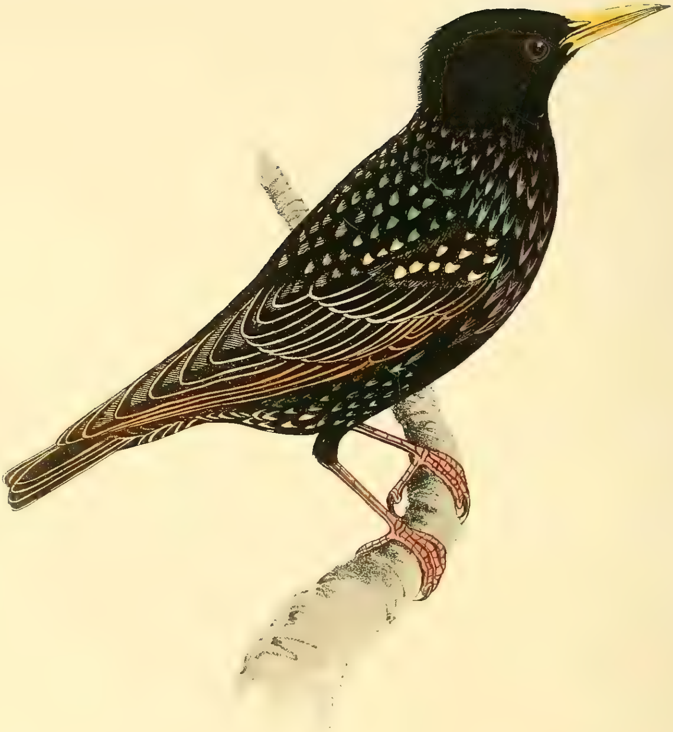


PLATE CXXII.

STARLING.

STURNUS VULGARIS.

The Starling is an inhabitant of most of the countries of Europe, Asia, and Africa, and in almost all is common and plentiful. It is found from the Cape of Good Hope to Siberia; and from Italy to Norway and Sweden, ranging as far north as Iceland.

The Starling most abounds in level countries, where woods, meadows, and corn-fields are intermingled, and where water is at hand. After the breeding-season they are seen in large flocks on fresh-mown grass-fields, among cattle, near the grassy banks of rivers, and particularly in places where rushes abound, to which they are very partial as roosting places, and whither they return every evening from miles distant.

On the continent of Europe Starlings leave the northern parts for the more southern in winter, and migrate in very large flocks by daylight. They begin to travel south about October, and return in March, in much reduced numbers; before migrating southward they assemble for several nights in a neighbouring swamp or marsh, abounding in rushes, and on a sudden fly away, several thousands in number.

The Starling is a very shy, but lively and sociable bird, generally seen in companies, not only of its own species, but of rooks, jackdaws, and even wild pigeons, redwings, fieldfares, and plovers. They are always moving about, and show restlessness in a great degree: they are never seen idle. In their movements they are quick and nimble, and very peculiar in their actions, and when strutting about they seem to limp, moving their head and shoulders from side to side with every succeeding step. Their flight is quick and hurried, and performed at no great elevation, unless a lengthened flight or migration is intended, in which case they mount higher in the air. The Starling is very fond of bathing, and cannot exist long without water, wherefore they appear to prefer the vicinity of lakes and rivers, especially where thick rushes abound. It is very amusing to watch a bed of rushes from some hidden spot, to see the Starlings arrive at sunset in large flocks from different quarters, and congregate for their night's rest. As soon as they have alighted they begin to pipe, sing, and chatter, until one after another becomes quiet and sinks to rest. At daybreak the chattering recommences, until the sun is just rising, when they all on a sudden fly up into the air, but return again and again, until they at last divide into flocks destined for different places.

The call-note of the Starling is very much like the first syllable of its name, star, or stoar! also spatt, spatt! Its song is composed of so many variations that it becomes impossible to describe, but the long-drawn whoo is it! and tsee! are predominant, besides the chirping and chattering, which altogether produce a concert of no trifling kind, and when heard at a little distance, the nearest description that can be given of it is the bubbling of some spring, or the noise of a waterfall of small dimensions.

The males and females both sing, but the latter least. When a young Starling has been caged for some little time, he may be taught singing, and even speaking, with less trouble than any other bird.

The food of the Starling varies with the season of the year, although insects are preferred if to be had. In the spring of the year they chiefly subsist on worms ; in the summer, when they have choice and plenty, they eat grasshoppers and their larvæ by preference, which they carefully look for in meadows ; they also catch many a winged insect, and destroy grubs of beetles, which they find in grounds where cows feed. The Starlings are very useful in destroying vermin off sheep, cows, and swine, which they most sociably take from the backs of these animals while perched on them. When the sheep are shorn in June or July, the Starlings have a plentiful feast.

The Starling has a peculiar manner of using its beak, which aids it much in getting at insects among stones, or from between leaves of plants ; what we allude to, is its thrusting its closed beak into crevices, and then opening it suddenly, not only with a jerk, but, as it were, circling its beak round, and thus dividing or overturning whatever obstacle presents itself.

In the autumn they devour many a mulberry, blackberry, etc. They are also most mischievously destructive among cherry-trees, which they pilfer unscrupulously ; not only eating many and carrying off more to their young, but in destroying them wastefully, and leaving them strewed beneath the trees ; these depredations are not only carried on early in the morning, but in the face of day, and in defiance of interruption.

When unmolested, Starlings return annually to their favourite breeding-places, whether holes in decayed trees, or apertures beneath the roof of houses : and are such amusing neighbours, that they are seldom discouraged or driven away.

In most parts of England these birds are known, but not in all equally abundant : they also appear to change their quarters from time to time.

"In the Isle of Wight," says the Rev. Charles Bury, "the Common Starling is now generally distributed, and in considerable numbers; yet fifty years ago, as I am credibly informed, the bird was not to be found in the island. Several persons have spoken of it to me as having been very scarce only twenty years back."

In Scotland, or at least in some parts of that kingdom, the Starling is not a permanent resident, judging from the observations of the Rev. G. Gordon, who, in a Fauna of Moray, says, "The Starling is seen almost every year in small flocks of from four to eight in the spring and autumn, and even sometimes in December; a few, like a young brood, observed one summer by Mr. Martin, at Stotfield, has been the only indication of their breeding in this part of Scotland, except at the churchyard of Petty, where, according to George Anderson, Esq., of Inverness, it has been known to build for many years in the roof of the Mackintosh's tomb; and at Moy, in Strath-dearn."

They frequent Caithness, and rear their young among the rocks that bound its southern shore.

"In Shetland," says Mr. Edmonston, "the Starling is very common at all seasons, breeding in caves, crevices of rocks, etc., generally near the sea: they congregate in large flocks after the breeding-season."

The localities in which the Starling breeds have been sufficiently indicated above; it remains but to speak of the materials of which the nest is composed. These are generally straw, roots, and dry grass; we have also seen green leaves plucked by these birds and carried to their hole; the eggs, five or six in number, are pale clear bluish green, without spot or cloud, somewhat pointed at both ends.

The entire length of the Starling is nine inches: the wing measures five inches from the carpus to the tip, and the first and second quill-feathers are of equal length: the tail is doubly semicircular, and reaching only nine lines beyond the tips of the closed wings. The beak is eleven lines from the forehead to the tip, and one inch four lines from the tip to the gape, which extends to beneath the eye. The form of the head is very flat, and describes nearly a straight line with the beak. The tarsi are shorter than the middle toe, which measures, with its claws, one inch two lines.

The Starling is a bird of very handsome plumage, the entire head, back, breast, and under parts, as well as the back and scapulars, are black, beautifully and richly glossed with green, purple, and crimson, when seen in different lights: every feather of these parts, and they are almost innumerable, are, in autumn, tipped with white or cream coloured spots, which shine like pearls.

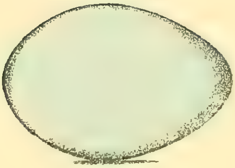
The primary quills with their coverings, the secondaries and tertials are rich purplish brown, bordered with pale rusty yellow: the rest of the wing-feathers are black with green reflections, and similarly edged. The tail resembles, in colour, the primary quills. The upper tail-coverts are black, glossed with green and edged with pale rust: the under are pure black, bordered with white. The iris is rich chesnut brown. The whole bird so gay in his clothing, so pert and self-sufficient in his actions, bears much resemblance to a gold-laced footman.

Towards the spring of the year, many of the white tips and edges wear away, and the bird presents a less gay appearance. The legs are mahogany colour; the beak rich yellow.

In very old males the head, neck, and breast, lose all the pearl-like spots, and resemble the figure in our plate.

In the female the white spots and yellow edges are larger and broader than in the males; but in other respects they are not dissimilar. Young birds before their autumnal moult have no resemblance whatever to their parents, except in form and actions, their whole plumage being a plain russet grey: this is changed at the first moult for the plumage described. In immature birds the beak is dusky, tinged with red.

The egg figured 122 is that of the Starling.



122

Pl. 193.

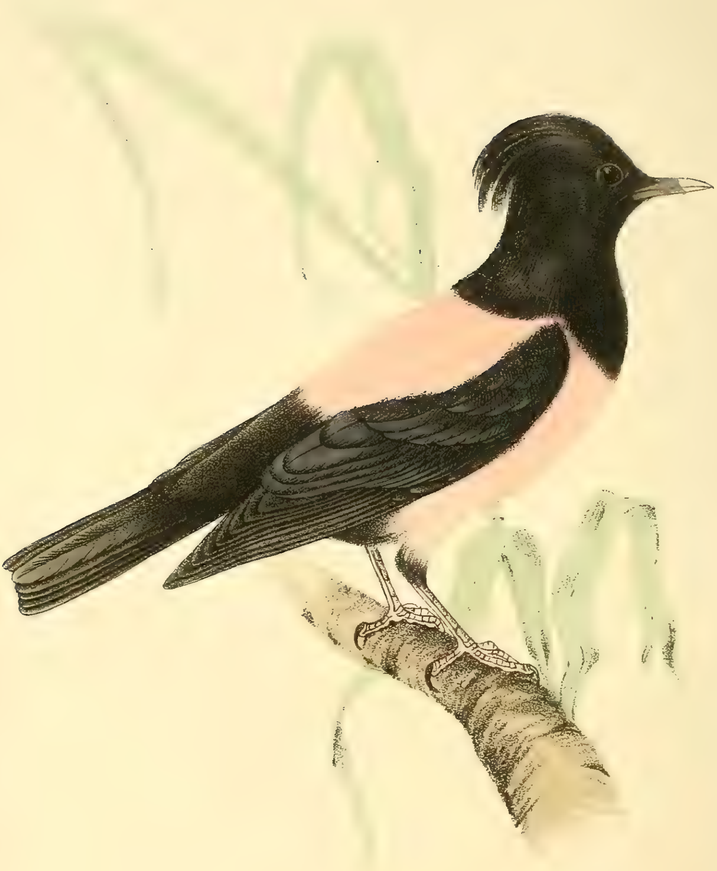


PLATE CXXIII.

ROSE-COLOURED PASTOR.

PASTOR ROSEUS.

THE native countries of the Rose-coloured Pastor are Africa, and the warmer parts of Asia, where they are found in plenty. They range from India over Persia, Arabia, Syria, the south of Siberia, and southern Russia. They also annually visit Greece, the south of Italy, and Spain. Where-ever else these birds appear in Europe, it is only as occasional visitants.

The Pastors are generally reported to be very sociable birds; they assemble in flocks like starlings, and often associate with them.

The food of the Pastor consists chiefly in insects, their eggs, larvæ and worms. Like the starling, the Pastor alights familiarly on the backs of cows and sheep: their most favourite food consists in grasshoppers; and they pursue locusts over countries of great extent. In consequence of their great partiality for these insects, the Rose-coloured Pastor is considered a sacred bird in Turkey, and prohibited to be destroyed. In countries where they are plentiful, they are reckoned to be a great delicacy.

We have once only had, ourselves, the pleasure of seeing this bird alive: it was a caged specimen, and in rather a faded state of plumage. In actions and form this individual bore a striking resemblance to the common starling. They are also said, when on the ground, to resemble that bird in their manner of walking and running.

Besides the countries above-mentioned as the usual resort of the Rose Pastor, some localities may be pointed out in which they are occasionally seen.

In England many specimens have, at different times, and in divers places, been shot, not only in the southern counties of England and Wales, but in Durham, Northumberland, and even a few as far north as Scotland. One specimen, also, was taken at Hoy, in the Orkneys.

In a Fauna of Shetland, by Thomas Edmonston, jun., Esq., that gentleman says, "I observed one of these beautiful birds in April last, associating with its relations the starlings: it was very shy, and I always failed in getting near enough to shoot it."

It might be supposed that they would abound in the islands of the Mediterranean, being situated between two continents, in which they are indigenous; no mention is, however, made of them in Mr. Drummond's list of the birds of Crete; and in the island of Corfu, according to that gentleman, they are only occasional visitants, and are considered rare.

M. Temminck, in the third part of his *Manuel*, speaks of the Rose-coloured Pastor as follows: "This species is not a bird of regular passage in the southern countries (of Europe), but appears irregularly, as the chatterer does in our more temperate provinces, apparently in pursuit of some species of insect in which its chief subsistence consists, which, driven by the winds, or some other accidental cause, visit countries to which these birds repair, consequently unexpectedly, and return when the insects themselves disappear." This species is common to the warm climates of the east and south: it is frequently seen in Hungary. It was very common in 1832, in Dalmatia. "There also appeared," says Mr. Cantraine, "great numbers of them in the Island of Pago, near the canal of Novgorod. They were common in Tuscany in 1818. M. Savi says that, in 1789, several pairs of these birds bred in Italy. M. Temminck also adds that the same species occurs from north to south throughout Africa; but has not yet been found in Japan.

The Rose Pastor is common in some parts of India. In the Dukhan, according to Colonel Sykes, these birds are so numerous as to darken the air with their flights; which occurring at the period of the ripening of the bread grain, are very destructive in their ravages.

In its food this species appears to be, like the starling, omnivorous. Locusts and grain have already been mentioned as very attractive to them: to which may be added fruit.

Bechstein speaks of a flight of eight or ten of these birds being seen in the environs of Meiningen, in Suabia, in 1774, moving from south-west to north-east, and passing from one cherry-tree to another. It is to be presumed that they visited the cherry-trees for the sake of their fruit. An individual of this species was also shot in 1836, in a garden near Swansea, in Glamorganshire, while regaling itself in a cherry-tree: and in the Isle of Wight, one was shot some years ago during harvest, while feeding on the berries of the elder.

The Rose Pastor, says M. Temminck, builds in holes in trees, and in clefts among rocks: and lays as many as six eggs; but neither this author, nor any other whom we have consulted, is able to mention their appearance or colour, neither does the season of incubation appear known, which is the more remarkable, as it must naturally take place in the summer; the season at which, from April to Michaelmas, it chiefly visits our neighbouring European countries, as well as our own.

Many authors, says M. Temminck, have included this bird, as well as some other foreign species, with the thrushes; M. le Vaillant was the first who has pointed out the true place which this species ought to occupy, — namely near the *Sturnidæ*, or starling.

This species has not yet been found in America, or New Holland.

The longevity of this species appears to be considerable, if we may judge from the fact of one having been kept caged above eight and twenty years. This individual came into the possession of a clergyman, M. Von Wachter, the rector of Frickenhausen, in 1774, and in the year 1802, was, according to the testimony of Bechstein, still alive.

The song of this species, according to the same authority, M. Bechstein, is very agreeable, being a combination of those of the starling, the goldfinch, and the siskin.

The Rose-coloured Pastor is a very beautiful bird of uncommon appearance, owing to the abrupt division of the two predominant colours of rose and black in its plumage, and its very elegant crest; its size is nearly ten inches in length, and sixteen inches in width.

The iris is pale brown; the legs and toes are strongly scaled on the front and top, and shafted at the back, all are of a dingy flesh red, except the claws, which are brownish horn colour. The tarsi is one inch and seven-eighths long; the middle toe one inch three-eighths, and the hinder toe, including the large claw, measures one inch and seven-eighths.

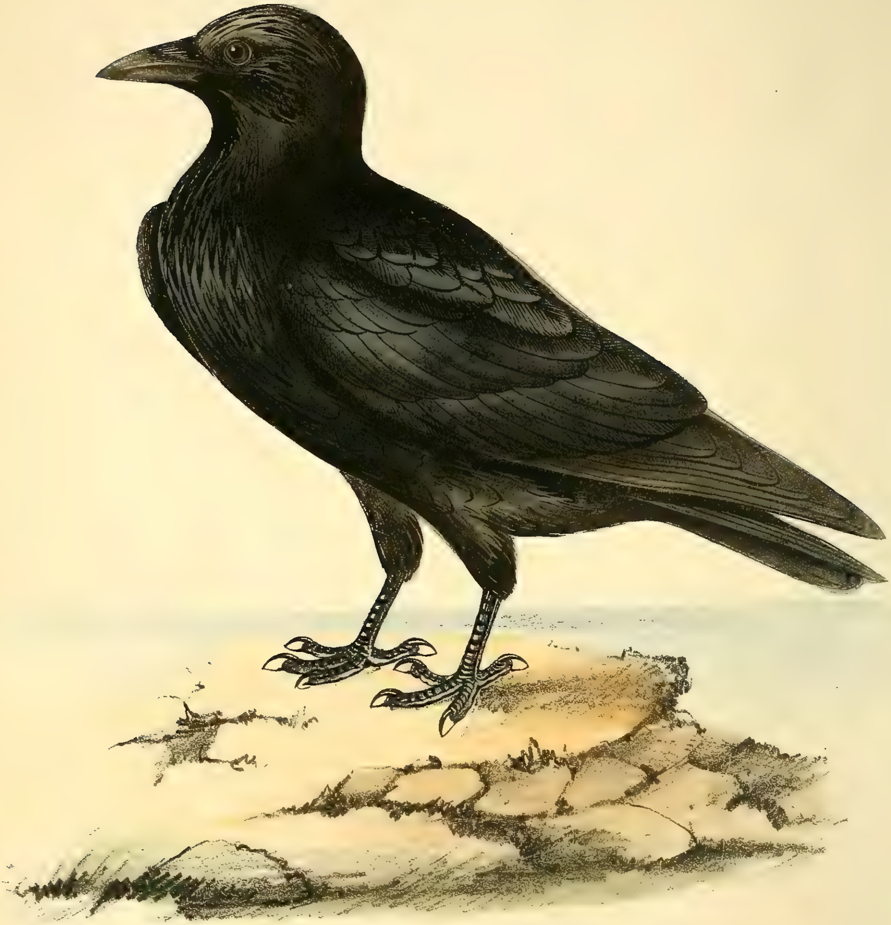
The adult male has a beautiful crest on the top of its head, consisting of a quantity of loose arched feathers, which, owing to the great spring in the quill of each feather, is never entirely laid flat. The head, including the crest, also the neck and breast, are black, reflected with steel-blue and purple; the back, rump, breast, sides, and shoulders, are a fine rose colour; on the shoulders are a few dusky dashes. The belly, upper and under tail-coverts are black. The under tail-coverts are bounded with white, and all the black feathers reflect either green or steel-blue. The wings and tail-feathers are black, slightly reflected with metallic colours, and the outer feather very narrowly edged with white. The wings and tail-feathers are dusky on the inner side, as also the under wing-coverts, which are bordered with white.

The rose colour on the bird, immediately after the moult, is, in the adult male, a true carmine rose red, which, however, soon becomes faded by the action of the sun and air.

Young males and hen birds never have the rose colour pure, but more approaching to flesh red. The adult females have a shorter crest on the head, and her colours are altogether duller and less pure. The young females have a still shorter crest, the other parts of the head and neck dusky, as also the wing and tail-feathers; the latter of which are edged with pale brown; the tertials and greater wing-coverts alone are black. The breast and belly, back and shoulders, flesh colour; the shoulder and upper back feathers are tipped with brownish-grey, overpowering the rose or flesh colour. The thighs, the upper and the under tail-coverts black; the latter with pale brown edges. The iris dark brown.

The young birds before they moult are so very different from the parents, that it requires some knowledge of them to identify them. They resemble most of all the young of the starling; they have neither crest, nor any sign of rose colour about them, and only distinguish themselves by their thicker and shorter beaks and lighter coloured feathers, which approach nearer to brown than grey. The beak and legs are dirty flesh colour; the corners of the beak and the soles of the feet yellow. The tip of the beak is brown, and the iris greyish-brown. The upper part of the bird is pale yellowish-grey, spotted with darker about the head. Wings and tail dusky, edged with pale dirty rust colour; a faded pale streak over the eyes ; the throat white, the breast and belly dirty white, the sides and upper part of the breast pale yellowish-brown, about the crop some dark streaks, the under tail-coverts dark brownish grey, edged with dirty white.

Pl. 184.



INSESSORES. *CORVIDÆ.*
CONIROSTRES.

PLATE CXXIV.

RAVEN.

Corvus corax.

Thr Raven is a bird well known in most parts of the world: it is indigenous throughout Europe, but more numerous in Sweden, Finland, Iceland, and Greenland, than it is in more southern countries. It is found also throughout Asia, from the southern parts to Siberia and Kamtschatka. It inhabits North America and Africa.

The Raven chiefly inhabits woods and forests, from whence he visits at pleasure meadows, fields, and the banks of rivers. During the summer months these birds confine themselves within a more limited range than in winter, at which latter time they forage to a considerable distance in search of food, usually returning at night to a favourite tree for their rest.

The Raven associates little with the other members of its family, such as the rook and crow, with whom it appears to hold no willing intercourse. It differs from the latter of these, however, chiefly in size, appearing much larger when on the wing than any of its tribe: on the ground also its form and attitude are much more noble and commanding.

The strength and sanguinary habits of this species are pointed out in more than one passage in Scripture: for instance, in the book of Proverbs it is said, "The eye that mocketh at his father, and despiseth to obey his mother, the Ravens of the valley shall pick it out, and the young eagles shall eat it."

The Raven is an observing and cautious bird, noticing everything that takes place within the range of his keen and jealous eye. He is also bold and pugnacious, and more than a match for many birds his superior in point of size. He will not allow a buzzard peacefully to enjoy a piece of carrion, but speedily attacks him and beats him off: he also pursues hawks upon the wing, and will even attack the eagle in the air. This bird is, however, as wary as he is powerful and bold, and seldom alights to feed upon the carrion that his keen eye has discovered, until he has several times circled round and round to see that all is safe. The very sharp scent of the Raven enables him to detect carrion at the distance of several miles; and the sportsman who lies in wait for this species watches in vain, if he exposes his person either by sight or scent to the acute organs of this sagacious bird.

When on the ground the Raven walks sedately; he also hops with great celerity, which power aids him so much, if wounded in the wing, that it requires great exertion in the pursuer to overtake a bird so circumstanced.

A pair of these birds may occasionally be seen on a clear calm day circling in the air, and towering above the clouds in the manner of the hawk tribe. When on the wing they may be heard at some distance, owing to the action of their strong wings upon the air.

The call note of this species is a full and deeply pronounced *craugh! craugh!* On the approach of stormy or rainy weather they utter many strange sounds as it were with great exertion. Their note of endearment sounds like *clong! clong!* expressed in presence of one another, but at no other time.

Young birds obtained from the nest become very tame, and learn to pronounce words plainly: they are, however, great thieves, and are known to carry off and hide children's toys, or anything that glitters. This natural propensity is shown also in their wild state, as they carry many bright and glittering substances in their nests.

"The corbie," says W. H. of Stobo Hope, in a communication to the Zoologist, "is well known to the shepherd on all the hilly tracts of Scotland. His common cry is croak; but when in a state of excitement he utters another sound, which, if I could manage to express by letters, I should spell thus—whii-ur: this is repeated with great rapidity, a strong accent being laid on the two ii's, and the *ur*, or last syllable, seeming to proceed from a collapsing of the throat after its distension in pronouncing the first. With this cry he very commonly intermixes another, something like *clung*, uttered very much as by a human voice, only a little milder in the sound. The Ravens are excited to these cries when the shepherd or his dog seems likely to discover a carcass on which they have been rioting and feasting.

"In Ravens the senses of sight and smell are remarkably acute and powerful. Perched usually on some tall cliff that commands a wide survey, these faculties are in constant and rapid exercise, and all the movements of the bird are regulated in accordance with the information thus procured. The smell of death is so grateful to them, that they utter a loud croak of satisfaction instantly on perceiving it. In passing over sheep, if a tainted smell be perceptible, they cry vehemently. From this propensity in the Raven, to announce his satisfaction in the smell of death, has probably arisen the common notion that he is aware of its approach among the human race, and foretells it by his croaking. I have no doubt the idea is founded in truth, although I think the common event is not communicated to the Raven by any immediate or supernatural impulse; but that in passing over a human habitation from which a sickly or cadaverous smell may escape, it is perfectly natural for him to announce his perception of it by his cries.

"Shakspeare, however, takes a different view from this, and represents the Raven as being seized with an immediate and supernatural impulse, in foreshowing the death of Duncan by his croaking. He makes Lady Macbeth say,—

> 'The Raven himself is hoarse,
> That croaks the fatal entrance of Duncan
> Under my battlements.'

Duncan when he entered Lady Macbeth's castle was in perfect health; but Shakspeare wrote in conformity with the legend, and, indeed, the general belief of the country; and he well knew the passage would take a firm hold on the human mind.

"The Raven lives at perpetual variance with all the other feathered tribes. Even those species which are far his superiors he annoys incessantly with his attacks, especially when loaded with food, carrying it either to their young, or to a spot where they can devour it without interruption. I once saw a goshawk carrying what I supposed to be a grouse, this was evidently dead, and sticking out behind the bird, gave it a very curious appearance.

"Three or four corbies were high in the air, making, from every quarter, repeated attacks on the goshawk, and endeavouring to rob him of his prey. At length, one of them was just striking the noble bird, when, relaxing its hold, the dead creature, whatever it might be, fell straight for the earth. The hawk dived after it with a rapidity perfectly astonishing, and, I think, before it had descended thirty fathoms, struck his talons into it, and bore it safely away from among his angry assailants.

" Nor is this enmity with the corbie confined to the feathered tribes; sundry of our quadrupeds live in constant warfare with the ill-conditioned fowl. If you see a corbie hovering and screaming over a linn or athwart the face of a rock, you may be sure that some animal has attracted his attention. Perhaps a fox is basking on a sunny slope; or the wild cat, cautiously seeking a safe footing whence to spring on some unwary bird that has its nest among the cliffs; or, perhaps, the supple weasle, sporting about, or examining every cranny to find a safe retreat:—I have seen the corbie vexing each of these. The fox will sometimes stretch up his neck and snap at his asailant, when he has made a sudden dive, but the bird eludes the danger, and continues his persecution as before.

" The corbie, thus feared by some creatures, hated by others, and most especially detested by the shepherd, on account of certain bloody designs against his fleecy charge, whenever driven by hunger to the attack, makes his nest in the deepest retirement, in solitude the most inaccessible. He selects a leafless, sapless branch of some stunted tree—a mountain birch or service—jutting out from the face of a perpendicular rock, and hanging over an abyss hundreds of fathoms deep,—the bottom often beset with sharp and pointed rocks. The nest is constructed of the decayed stems of heather, skilfully and carefully wattled together with twigs of other trees. A layer of moss is next supplied to fill the interstices, and thus render the mass more compact; this layer is thickest at the bottom, and in places where the outwork of heather has been made too slight; the inside is partially lined with sprigs of the fly-bent, but principally with wool. Here are deposited the eggs, and here the callow brood are fed and nourished, and kept dry and warm. The eggs are five, six, or seven in number, of a bluish colour, blotched with irregular spots of brown. The order in which they are deposited is scarcely ever seen, for it rarely happens that a human being can approach sufficiently near for the purpose. The young corbies, however, are seldom permitted to escape; for the shepherd seeking the spot, perilous though it be, smashes the eggs with stones hurled from above, and batters the nest to pieces. He sometimes postpones his revenge until the young ones, full grown and fat, are peeping over the brink of the nest, and almost ready to abandon it altogether. He would always delay his attack till this period, but as the young advance in age and size, the more extensively and recklessly do their parents cater for their support.

"When Ravens set out on a long journey, they always travel in pairs, and so high in the air that, were it not for their frequent crying, they would escape notice altogether. So great is the height at which they fly, that no cliff or peak, however lofty, can cause them to swerve from the direct course on which they are bent."

Some interesting particulars of the nidification and habits of the Raven are detailed in the same periodical, by A. E. Knox, Esq., as follows, "The Raven, although still to be found breeding in some parts of the country favourable to its nidification, is much less numerous as a species, and more partially distributed here than in former years. This in some measure is to be attributed to the gradual disappearance, from our woods and parks, of most of the tall old trees in which they loved to build, and partly to the absence of that superstitious veneration with which this bird is still regarded in the north of England.

"A pair of Ravens used to build until very lately in the ruins of Bramber Castle, near Steyming; but continued persecution has, I understand, effectually banished them from that neighbourhood.

" As these birds breed very early in the spring, the young are generally fledged about the latter end of March, or the beginning of April. After that time they are not to be found in the vicinity of their nests; but, accompanied by their young ones, the old birds seek an open country without trees or human habitations, where, secure from sudden surprise, they superintend their education in the art of flying.

" A pair of Ravens, with two or three young ones, have frequently been observed thus engaged, at this time of the year, on the South Downs, near the Devil's Dyke. On one occasion, the latter, when apparently fatigued by their early lesson, alighted on the ground, and did not then exhibit that wary dread of man which might have been expected ; but, in spite of the loud admonitory croaking of the parent birds, who hovered over them in the air, and evinced every sign of anxiety and uneasiness, they allowed the observer to approach within a short distance, before they finally took their flight and followed their conductors to a neighbouring hill.

" In Petworth Park, in a clump of unusually tall old beech trees, whose trunks have been denuded by time of all their lower branches, the Raven occasionally breeds. I was not aware of this fact until early last March, when, as I was riding in the neighbourhood of these trees, my attention was arrested by the never-to-be-mistaken croak of a Raven, and the loud chattering of a flock of Jackdaws.

" I soon perceived that these were the peculiar objects of his hatred and hostility ; for, after dashing into the midst of them, and performing several rapid evolutions in the air round about them, he succeeded in effectually driving them to a considerable distance from the nest. During this manœuvre, the great size of the Raven became more apparent than when viewed alone, and his power of flight was advantageously contrasted with that of his smaller congener. The latter, indeed, appeared to bear precisely the same relation to him in point of size, that Starlings do to Rooks when seen in company with each other.

"The Raven's nest was placed in the fork, on the very summit of one of the highest of these trees, while the hollow trunks of many of them (almost all of the trees, being internally decayed) were tenanted by a numerous colony of Jackdaws.

"Some of the apertures through which they entered were so near the ground as to enable me to reach them when on horseback, while others were situated at a much greater height. These conducted to the chambers in which the nests were placed, and which were generally far removed from the external orifice by which the birds entered their tower-like habitation.

"On thrusting an elastic rod upwards into some of these passages, I found it impossible to arrive at the further extremity of the apartment, while a few cavities of smaller dimensions were within reach of my hand, and contained nests constructed of short dry sticks, some of which were in a yet unfinished state, while in others one or two eggs had been deposited.

"The next day I returned to the place, provided with a spy-glass, for the purpose of observation. On my arrival I found that the Ravens were absent, and that the jackdaws, availing themselves of this, had congregated in considerable numbers, and were as busily employed about their habitations as a hive of bees; some carrying materials for the completion of their yet unfinished nests, others conveying food to their mates, and apparently making the most of their time during the absence of their tormentor.

"There being no covert or brushwood at hand, and the branches of the trees being yet leafless, I was unable to conceal myself effectually, but having lain down at the foot of a tree containing the nest, I awaited the return of the Ravens.

" Nearly an hour elapsed before the arrival of the male bird, and I was first made aware of his approach by the consternation which it appeared to spread among the jackdaws. Like most animals under similar circumstances, when conscious of the approach of danger, they rapidly collected their forces on a single tree, keeping up all the time an incessant chattering, each bird shifting his position rapidly from bough to bough, while the Raven, who held some food in his beak, satisfied himself on this occasion with two or three swoops into the terrified crowd, and having routed the greater part of them, he approached the tree in which his nest was placed.

" Before arriving there, however, he evidently became aware of my presence, and dropping his prey, which proved to be a rat, he ascended in the air to a great height in circular gyrations, after the manner of a falcon, where he was soon joined by his consort, and the two birds continued to soar above my head while I remained there, uttering not only their usual hoarse croak, but also an extraordinary sound resembling the exclamation " Oh ! " loudly and clearly ejaculated.

" At first I could scarcely persuade myself that it proceeded from the throat of either of the Ravens, but my doubts were soon dispelled, for there was no human being within sight ; and after carefully examining one of the birds for some time with the glass, I observed that each note was preceded by an opening of the beak, the great distance, of course, preventing sight and sound from being simultaneous.

" I could not accurately distinguish to which of the birds this exclamation was to be attributed, but it apparently proceeded from one only, which seemed to be the female, or lesser of the two, and if intended to have the effect of imposing silence on its young, proved perfectly successful ; for during the two hours that I remained there, the latter never uttered a cry.

" With the assistance of ladders firmly fixed together, the nest was reached. It was comfortably lined throughout with the fur of the fallow-deer, and contained three young ones, which appeared to have been hatched about a fortnight.

"About six years have elapsed since a former pair of Ravens built in Petworth Park. The old male was at last shot; this occurred in the morning, and at three o'clock in the afternoon the survivor had found a help-mate, who continued faithfully to discharge the duties of husband and father, until the destruction of the young birds at a later period.

"Some years ago a pair of Ravens used to breed annually in Burton Park, about four miles from Petworth; disappearing from the neighbourhood when their young were fledged, but always returning in the ensuing spring.

"The head-keeper, better acquainted, it would appear, with the habits of birds than persons of his profession are apt to be, afforded them every protection. He had discovered that they were his best friends. Not a hawk, or weasel, nor indeed any winged or four-footed animal, usually designated "vermine," were suffered by the Ravens to appproach the wood in which stood the tree containing their nest.

"Although pheasants and hares abounded in the immediate vicinity, neither these nor the young were ever molested by the Ravens. Their foraging expeditions were carried on at a distance, and their food consisted almost entirely of young rabbits, and the decomposed flesh of larger quadrupeds."

The Raven, like some of our other birds of prey, appears gradually to be retreating before the rapid march of civilization, and to be retiring, like the Britains of old, to wooded and mountainous fastnesses, where it can for the present remain unmolested. Many spots formerly frequented by this species, appear now, within the memory of man, to have become deserted. "The primæval forests," says Mr. Hepburn, speaking of East Lothian, "which covered the surface of this country, have long since disappeared, and in this neighbourhood we have no traditionary Raven's tree. The lordly bird is confined to the range of the Lammermoors, and to the rocky islets lying off the North Bewick coast. They are few in number, and I never heard any complaints of their ravages from shepherd or housewife."

"The corbie," says the Rev. G. Gordon, in his Fauna of Moray, "is found in the upper and more inaccessible parts of the country; but its numbers are much circumscribed by those appointed by sportsmen and sheep farmers for destroying vermin."

In Shetland, according to Mr. Edmonston, the Raven is a permanent resident, and common. The cliffs of the Isle of Wight still afford a refuge to this species: and several pairs, according to the testimony of the Rev. C. Bury, annually breed there.

In Corfu, according to Mr. Drummond, these birds are very numerous and always seen in flocks, and breed among the rocks of the citadel.

In Belgium, says M. Julien Deby, Ravens are found on the wooded mountains on the banks of the Meuse: they are there gregarious, and are seldom seen elsewhere.

The Raven measures about two feet and two inches in length; the female is smaller. The entire colouring of the bird is black, reflected with steel, or prussian-blue, on the head, back, and elongated feathers of the breast. Irides brown.

The egg figured 124 is that of the Raven.

INSESSORES.
CONIROSTRES.

CORVIDÆ.

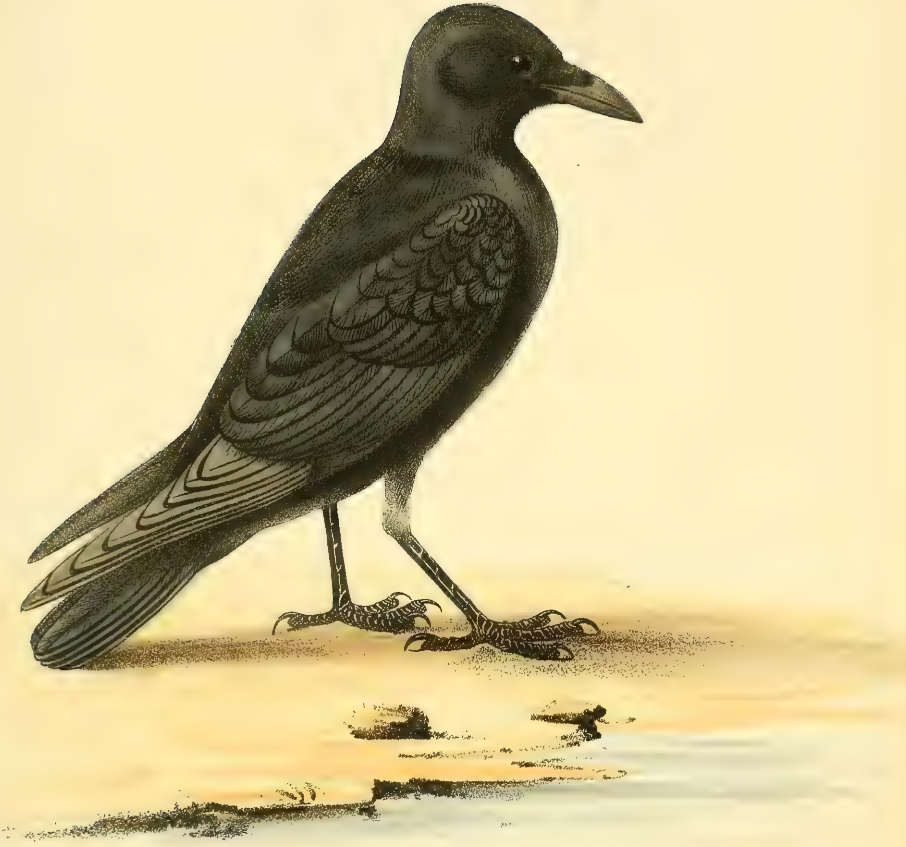
PLATE CXXV.

CARRION CROW.

Corvus Corone.

The Carrion Crow is an inhabitant of many countries, including the warm and temperate parts of Europe, the north of Africa, and many parts of Asia and America. In Europe its range does not extend so far towards the north as that of the raven, but it is considered more numerous southward than that species; thus keeping up the perfect balance that is everywhere to be observed in Nature, in whose dominions nothing is wanting, nothing superfluous.

Sweden and Denmark are considered to be the northern limit of this bird in Europe, and in those countries even they are not very numerous. In our temperate climate the Carrion Crow, if nowhere very plentiful, is yet generally dispersed. These birds inhabit chiefly woods, from whence they visit daily the fields and pastures around. Like the raven, they possess very acute organs of sight and smell, by which they are enabled to detect at a great distance their often disgusting food. But although ranked among the scavengers of nature, in which capacity they doubtless perform a prominent part, these birds are far from confining themselves to dead and putrid food, but are popularly and perhaps not unjustly considered among shepherds, gamekeepers, and the guardians of the farm-yard as objects of



dread and aversion, although on this subject opinions are at variance, whether their utility as destroyers of vermin and devourers of objects obnoxious to the senses, may not more than compensate on a large scale for the mischiefs perpetrated by them.

Crows, although not gregarious, appear more sociably to consort with other members of the *Corvidæ* in general than the raven does; except during the breeding season, when they keep aloof from their own species, two pairs being seldom found to breed near one another. "Crows go in pairs the whole year round," says Gilbert White; it is therefore probable that, like ravens, they pair for life.

The flight of the Carrion Crow is buoyant and steady: when on the search for food he may be often seen, if in the vicinity of a farm-yard, to wheel and circle slowly round and round, his head inclined, and his gaze carefully bent upon the objects below, now wheeling higher, now lower, as he is alternately tempted by an opportunity of plunder, or scared away by the appearance of some object of which he is himself afraid. We have sometimes been greatly interested in watching these proceedings: as well as in observing the anxiety with which the intruder is regarded by the feathered tribes in the farm-yard,—the upturned and foolish gaze of the ducks peering aloft with one anxious eye, the hens fidgetty and fearful for their infant charge; and have admired the instantaneous rush of the young brood for shelter the moment the warning note of the alarmed mother was given.

"The Carrion Crow," says Mr. Hepburn of East Lothian, "haunts our fields in pairs throughout the latter months of autumn and winter, until the return of spring recals him and his dark mate to the upland plantations and hill sides, where they rear their young in comparative safety. On returning to their summer quarters they add grain to their bill of fare. Almost every spring a pair or two attend pretty closely upon our flocks during the lambing season; yet I have not been able to bring any charge of murdering ewes and lambs against them, nor am I aware that our hill shepherds bear them any grudge on this score. No one who has ever marked his noble mien, his courteous bowings to his mate, before making the woods ring out with his joyous cawings, can resist admiring the bird around whose life and conversation prejudice and ignorance have thrown a dark cloud."

In opposition to this peaceful picture we must acknowledge that the Crow is accused on the testimony of persons of undoubted veracity, of destroying sickly sheep and killing and devouring young lambs. "In the lambing season," says W. H. of Stobo Hope, in some notes published in the Zoologist, "the Crow is the dread of the shepherd, and commits unheard of cruelties; at this season its nest is overflowing with young, which require an enormous quantity of food: and many an inoffensive creature is slain to gorge their craving appetite. The symptoms of parturition are as well known to the Crow as to the shepherd, and a group may often be seen waiting with anxious expectation. If the mother escapes, the young lamb frequently becomes a victim before it has yet stood erect."

The Carrion Crow feeds, besides, on worms, insects, fruit, and vegetables, young game, and mice; but their favourite food is, as their name implies, carrion; and during cold weather they enter towns and villages on the Continent, where they pick the bones and other remains that they find in the streets.

About the latter end of February or beginning of March, Carrion Crows enter upon the construction of their nest, in which both male and female take their part. The nest is usually placed in the top branches of a forest tree, where the female deposits four or five eggs. It is constructed of a layer of twigs, upon which is placed vegetable mud, moss, and earth intermixed; the interior lining being of wool, bristles, and hair, in all forming a substance that will resist common shot from penetrating. They sometimes breed twice during the summer months. When the young are hatched they are blind, and require the unremitting care of the parents, who feed them on insects, worms, and young birds.

The entire length of the Carrion Crow is one foot and a half. Its whole plumage is black, brilliantly glossed with steel blue on the head, breast, and scapulars; as well as on the outer webs of the wing and tail feathers. The beak is black, and the nostrils covered with long black hairs directed forward: the legs and feet are shining black. The iris is dusky.

The egg of this species is figured 125 in the plate.

INSESSORES.
CONIROSTRES.

CORVIDÆ.

PLATE CXXVI.

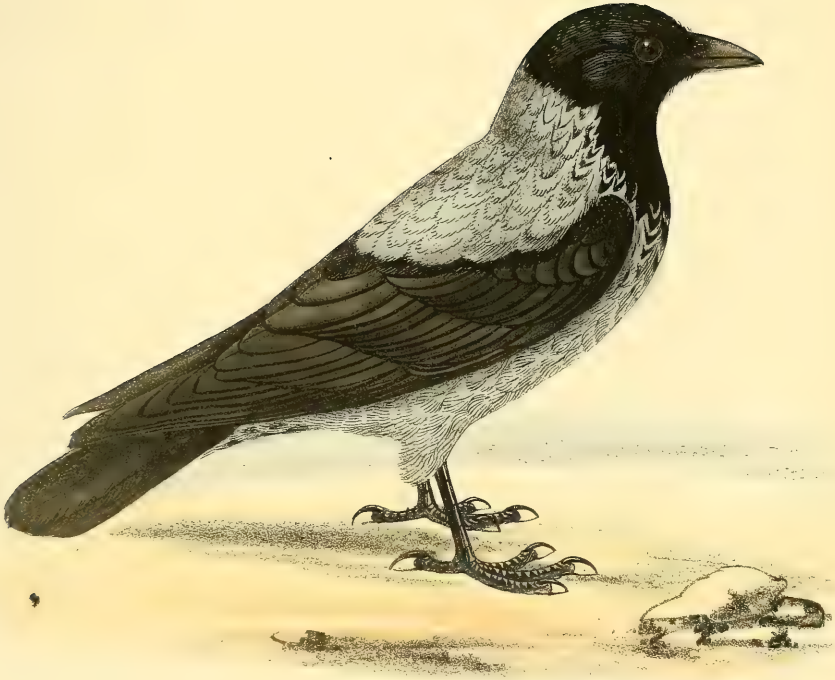
HOODED CROW.

CORVUS CORNIX.

THE HOODED CROW differs very much in colouring from all others of its tribe; and also in habits from the last mentioned. Their home is in the northern parts of Asia, America, and Europe. During summer, Hooded Crows sojourn as far north as the Ferro Isles and Lapland, from whence they are driven on the approach of winter by the falling of the snows, or the severity of the frost. During this season they visit the middle and southern parts until returning spring. We have generally observed their arrival in great numbers in North Holland about the end of August, when they may be seen stalking about stubble and ploughed land in company with the rooks and crows. Many a time have we been amused with the ignorance of the Dutch boors, who will point out the Hooded Crow, and affirm that it has turned grey from age. The Hooded Crow is generally considered a migratory bird, in the more northern and southern parts of Europe, and indigenous or stationary in the intermediate countries verging on the northern side.

Wooded country intersected with fields and meadows, in the vicinity of water, these birds prefer; they are also very partial to the sea-side. Towards the beginning of March the Hooded Crow returns to his breeding-place, and builds

Pl. 126.



either in a lofty tree in an avenue, or by the side of a field: they have been known to build on the wood-work under a bridge, and even on a mound of earth in an unfrequented field. The nest much resembles those of the former mentioned species, and the eggs are four or five in number.

The Hooded Crow is in its nature shy and cautious. At night they generally roost in trees singly, but when migrating rest in companies: at such times they retire late to rest, and rise before the sun, when one uttering its cry of joy (crea,) rouses its fellows, and all suddenly take wing and pursue their way.

The food of this crow is varied by season and circumstances. In summer it consists of worms, insects and their larvæ: in winter they search for frozen fish on the banks of rivers; they also devour frogs and reptiles. The eggs and young of birds, and even leverets, do not escape them.

Respecting the food of this species in Scotland, Mr. Hepburn says, "the Hooded Crow only occurs as a rare straggler in our inland parts. It abounds along our coast from Prestonpans to Galune Point, at least in the autumn. Nobody but the gamekeeper has an ill word to say against this Crow; it joins the rook and other friendly birds in searching after the insect foes of the farmer: but with us its chief subsistence is obtained on the sea-shore."

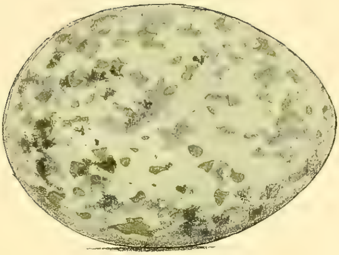
In Shetland, as may be expected, this Crow is very common. In Moray, according to the Rev. G. Gordon, "it is much more abundant than the raven and the carrion crow, particularly in the lower and better cultivated part of the country, where they build in trees and remain all the year. They here perform many of the offices assigned to the vulture in warmer climes. The grey parts of the plumage are occasionally found shading through brown, down, in some individuals, to pure black, which, when they mate with others of the ordinary colours have been regarded by some as carrion crows."

In the Isle of Wight this species rarely occurs. In Corfu it is occasionally seen, according to Mr. Drummond; but in Albania, where they also breed, they are very common. In Crete they are also very numerous, and breed there. The Hooded Crow is considered rarely to breed in England, at least not in its southern parts: we know of no instances recorded of its breeding further south than Norfolk.

The Hooded Crow has the entire head and throat, and upper part of the breast black, with purple reflections, forming a hood or cap; the wings and tail are black, with a greenish gloss; the rest of the upper and under parts grey. The iris is dark brown; the legs and feet black.

The entire length of this species is nineteen or twenty inches.

The egg of the Hooded Crow is figured 126.



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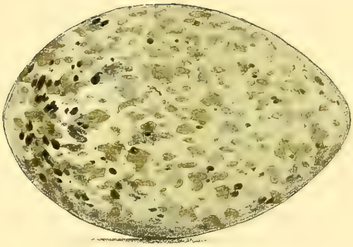

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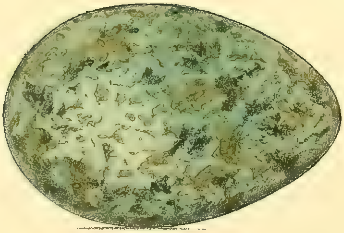

126.

Pl. 12

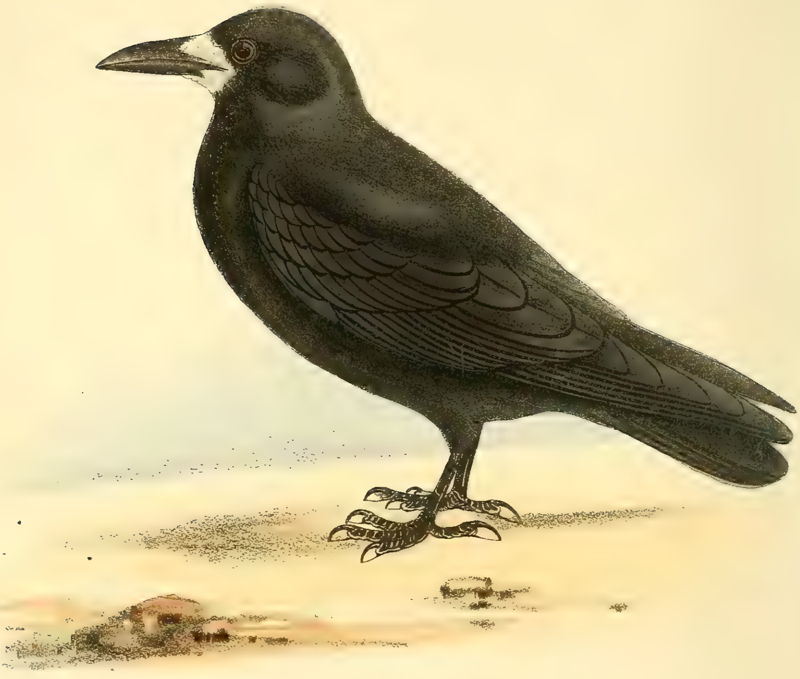

PLATE CXXVII.

ROOK.

Corvus frugilegus.

The middle and southern portions of Europe appear to be the climates chiefly adapted for the residence of the Rook. It is also known to inhabit some of the temperate parts of Asia, being found about the Black and Caspian Seas, and eastward, as far as Japan. From North America we have no distinct information on the subject. The range of the Rook in Europe is confined within much narrower limits than those assigned to the raven and the crow. It penetrates not further north than the southern parts of Sweden in summer, and leaves those regions entirely in winter. In Shetland it appears to be a bird of uncertain and periodical appearance, and is only mentioned by Mr. Edmonston in his Fauna of that island, as being "sometimes seen in spring." In Scotland, in parts at least of that kingdom, the Rook is a permanent resident; this is the case in Moray, according to the Rev. G. Gordon, where this species remains all the year, frequenting at most seasons arable or meadow land, and feeding chiefly upon terrestrial or rather subterranean insects; but after the breeding season, according to the same gentleman, they repair for a short time to the hills and moors, to feed upon larvæ that are about that period making their appearance in those subalpine districts; or as some suppose, to regale upon the fruit of the Crowberry (Empetrum nigrum).

Throughout England, with little exception, the Rook is well known, frequenting cultivated districts for the sake of the innumerable larvæ that are to be found beneath the soil; also pasture lands, which in some counties are of vast extent. In these the persevering Rook penetrates with its strong horny beak, in order to discover the hidden larvæ of various kinds of beetles, and other insects, whose ravages without such indefatiguable persecutors would eventually destroy the verdure of the surface by attacking and injuring the root. So sagacious are the Rooks in search of these hidden enemies that they can distinguish those plants that are attacked, and by plucking them up, remove and devour the grub; by this process a grass field, although it presents for a short time an unsightly and ragged appearance, by being strewed with tufts of withered grass, becomes rid of many powerful and unseen enemies, which without the timely interposition of these friends of the farmer would have destroyed its verdure irremediably.

The utility of the Rook was formerly little understood, and in some districts it was proportionably persecuted: but the observations in later times of clearsighted and experimental farmers have been so decidedly favourable to the character of this species, that it is now generally cherished as a valuable auxiliary and friend; and the occasional mischief perpetrated by it is overlooked in consideration of its general utility. In some few districts, however, the ancient prejudice against these birds still prevails: in the Isle of Wight, says the Rev. C. Bury, the Rook is abundant, "but would be still more so if the farmers knew its value."

To continue our enumeration of the countries and districts frequented by this species we may add that they are not found in all parts of Germany or of France; in the southern parts of the latter country they abound most in winter. In Belgium, says M. Deby, they are very common; "some remain all the year round, but the greater number are migratory. Vast flocks are seen every year, during the month of October, flying in a south-westerly direction."

Having now traced the Rook from the southern parts of Sweden down to the South of France, it remains to observe how much farther to the south its range extends, on which very little remains to be said. In the island of Corfu the Rook is not a permanent resident, but only retreats thither in winter, about the same time that it leaves Germany, the north of France, and Belgium: "it arrives in Corfu," according to Mr. Drummond, "in October, and takes its departure for the north in February." In the island of Crete the Rook is not found: and the same has been observed of our Channel Islands, Guernsey and Jersey.

In its habits and manners the Rook differs widely from those members of the *Corvus* family previously mentioned. While the raven and crow lead, like other predatious birds, a solitary and unsocial life, feared by weaker birds and animals, and disliked by man, the more civilized and peaceful Rooks live in large communities, either from feelings of sociability, or motives of defence: and instead of seeking wild and solitary places for their residence prefer the neighbourhood of mankind, and on many points may be considered as creatures little removed from domestication, so intimately do they ally themselves to mankind by means of services rendered and received. The sight of them is also associated with the civilization of agriculture, and the sound of their cheerful cawing can never be heard with indifference.

Although indigenous in this country and permanent residents, the contemplation of the migratorial habits of these birds on the continent of Europe leads us to observe some slight affinity with the purposes of migration in their manners in England, namely, that at stated periods of the year, their habits undergo a partial change, in order to procure what in other countries they obtain by migration,—warmth and shelter. About October these birds are often observed to congregate in large flocks about their nest-trees, where they appear restless and busy, circling round and round, rising and falling in the air, and apparently preparing for some unusual movement. After spending some days in this manner, they assemble in a vast body, consisting often of the members of more than one rookery, and depart to some distant woods, where they take up their quarters for the night, and which they continue to inhabit nightly while winter lasts, but return every morning to their customary feeding-grounds, which are generally in the vicinity of their nesting-trees, where they feed until evening ; and are again about sunset seen to return to their woods for the night.

About the middle of March, Rooks begin again to resort to their nesting-trees, which are usually the loftiest trees in an avenue or an isolated clump of forest trees in a park or wood, generally in the vicinity of a village, or some venerable manorial residence. These colonies return to the same rookery annually to breed, and are often of older standing than the memory of man can trace ; and it is probable that nothing but the eventual decay and removal of the trees to which they are accustomed will cause them to desert a spot resorted to for ages by their ancestors.

It has often been a subject of vague speculation with us what becomes of the many birds that are every year brought up in each individual rookery. The accidents of life can hardly destroy them in proportion to the annual increase, especially considering the longevity usually attributed to the Corvus family in general. Neither do rookeries enlarge very materially from year to year; nor is the establishment of a new rookery where none existed before a circumstance of very frequent occurrence.

Occasionally, however, a newly founded colony is observed to establish itself; of which an instance was lately communicated to us by a friend, who says, "Between five and six years ago, about thirty pairs of Rooks, visited some trees in a field belonging to Edmund Jenny, Esq. of Hasketon, Suffolk, and began to build. In due time they finished their nests and laid eggs; and while sitting upon them, a violent storm of wind blew down their eggs, and some of their nests, and damaged the rest, and hindered them in their purpose of rearing up a family that year. In the following spring the Rooks returned to the same spot; built their nests, laid their eggs, and reared their young; and there is now a thriving rookery."

Rooks are cautious and wary birds, and very watchful of the approach of an enemy in the shape of man, taking great care to keep out of gun-shot; and when on the wing overhead will suddenly diverge from the course of their flight if a stick only is pointed at them. They are, however, courageous in defence of themselves, if wounded, or in resenting the death of one of their own community, of which we met many years ago with a curious instance. Being once out with a gun it was our fortune to have rather better sport than our companion, who had killed nothing, and being rather irritated at his bad luck determined to shoot the first thing that came in his way. Presently a flight of Rooks came over; he raised his gun and fired, and one of the birds fell; as he stooped to pick it up, the whole flock suddenly descended, and attacked and mobbed the man with so much fury that he was obliged to defend himself with the barrel of his gun. For some moments we could not help enjoying the sight, but at length felt obliged to go to his rescue, when the Rooks finding two enemies to contend with, gave up the contest and flew off.

If by chance wounded in the wing, a Rook will endeavour to escape by running and hopping with such celerity that it is no easy matter to overtake him.

In meadows partly overflowed by winter floods we have been amused at observing the Rooks wading knee-deep in the water in search of worms, and carefully holding their wings aloft that the water might not reach them, and so obstruct their powers of flight. While feeding on the ground in flocks Rooks are always observed to place sentinels on several neighbouring trees, who give the alarm of any approaching danger, on which the whole body rise, wheel, and circle, and if necessary seek their safety in flight.

The nests of this species are placed usually very near the tops of the trees, and are composed of a vast quantity of materials; they remain from year to year, requiring only some repairs in the spring before they are taken possession of by their former inhabitants. We are inclined to think that the same pair of Rooks usually return to the nest formerly built by themselves; and that the frequent squabbles and battles that occur in the building season may be in order to obtain severally at last the quiet possession of their respective and hereditary rights.

"Rooks are sometimes known," says Mr. Briggs in a note in the Zoologist, "to desert their nesting-trees without any visible cause, after having occupied them for a very considerable number of years. They are also said never to build on any except those which are still growing, nor after they have arrived at maturity, both of which circumstances may be accounted for in the following manner :—Trees still growing, by shooting forth young twigs annually, afford the Rooks a better means whereby their nests may be attached ; while, on the contrary, those on the decline have their summits composed of dead, dried branches, on which the nests have little hold, and are, consequently, liable to be blown down by every hurricane. Carpenters and woodmen sometimes turn these habits to good account, when determining the proper age for cutting down rookery timber, deeming it quite ready for the axe when these birds forsake it for another habitation."

The length of the Rook is eighteen or nineteen inches. The plumage of the whole body is black, richly glossed upon the head, neck, breast, and all the rest of the upper parts, with purple reflections. The beak is black : the basal part of the beak, and the skin round about it, are whitish and mealy, owing to the wearing away of the feathers by the process of digging, by which this species obtains its sustenance. This peculiarity in the Rook does not shew itself until the young birds acquire the power and strength to provide for themselves, which takes place during their first winter : until that period, their throat, and basal part of the beak are clothed with black feathers, in the same manner as in the rest of the Corvus family. The iris is brown : the legs and feet shining black.

The Rook produces four or five eggs, and the young are ready to fly about the end of May : if taken just before they leave the nest they are excellent eating, being little inferior to pigeons.

In some parts of Suffolk, and probably in other counties where these birds abound, multitudes are shot for this purpose from their nest trees by means of cross-bows.

The egg figured 127 is that of the Rook. In some specimens the spots are less numerous; in others the colours appear smeared or washed together.

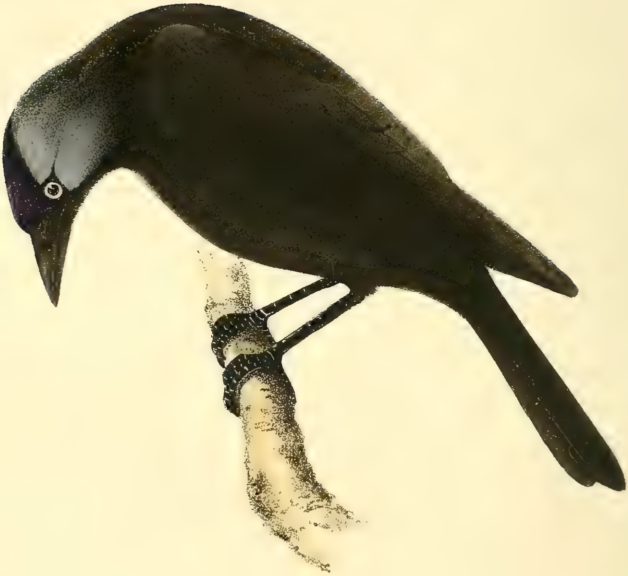

PLATE CXXVIII.

JACKDAW.

Corvus monedula.

This smaller species of the Corvus family is probably well known in all parts of this country, and is in some localities very plentiful. It associates much with the Rooks, accompanying those birds in their flights, and feeding among them. They may be distinguished at any visible distance by their inferior size, and by their peculiar cry of "Jac! jac!" which they often utter while on the wing. In their manner of flight they differ from the Rooks, their companions, moving their wings with a quicker, flapping motion, and are seldom observed to sail. When near enough for more close observation, they may readily be known by the grey neck or collar; which in some specimens is very pale in tint, approaching to silvery white. This species, like some others of its family, is capable of being readily tamed and reduced to domestication, in which state his manners are amusing; but on the whole he is a very troublesome pet, as he not only is a most merciless and voracious enemy among cherry-trees, gooseberries, and other fruits, as soon as they are ripe, but even enters the dwelling-house of his master, and sometimes of all his neighbours round, where he commits many acts of pilfering, and will slily abstract and carry away any small glittering object that he perceives;[*] he is besides of so bold a disposition, and so forgiving, that it is difficult so to affront him as to make him keep at a more respectful distance.

Jackdaws feed indiscriminately on insects, grain, fruits, and the pods of leguminous plants, &c. Their places of nidification are as diversified as their food; but they appear chiefly to prefer for the locality of their nest the tops of lofty towers, churches, the academical buildings in Universities, &c.: they also build among rocks, and in the hollows of decayed trees. Although these birds associate so much with rooks they do not build among them, but breed in distinct colonies. The only instance of Jackdaws building on the branches of trees, that we remember, is one related in the Zoologist by Alexander Hepburn, Esq., who says, "On the 13th of June, 1841, whilst walking in Binnie wood, in company with two friends, we had just emerged from a noble grove of beech trees, on a glade where the woodman's axe had been busy, when the lively cawing of a Jackdaw awoke the deep stillness of the wood, and eager to learn what the garrulous, social bird was doing in that lonely place, we walked to the foot of a tall scotch fir whence the sound proceeded; there we found the dead body of a young Jackdaw, and heard the grateful chatter of another: on looking upwards to the bushy, unnatural growth of its branches, we perceived a bulky nest, whence the old daw speedily made its escape."

The Jackdaw's nest is remarkable for the quantity of strange materials brought together. The eggs are five or six in number: in the ground colour they are pale bluish white, prettily marked with distinct spots of ash colour and dark brown.

The Jackdaw appears to be found throughout the length and breadth of Europe: it inhabits Denmark and Russia, Iceland, Shetland, and the Orkneys: it is common in Scotland, and throughout England to the coasts of the Isle of Wight. In Belgium it inhabits towns and cities, and builds, as here, either in lofty buildings or in fissures in the rocks: this species is also very common in Holland. It is found in Corfu, where it is sedentary, and inhabits also the island of Crete, and breeds at the foot of the mountains. In Asia this bird is found in Siberia, and in various other countries, as far as the most eastern part, being very common in Japan. It has also been observed in Asia Minor. This species does not, it is believed, inhabit America, nor is it known to exist in Africa.

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[*] We knew a Jackdaw that used to enter a bed-room window and strip a pincushion of its pins, scattering them about the table; to the no small perplexity of the owner, until the perpetrator was discovered.

The entire plumage of the Jackdaw consists of rusty black, and smoke grey; the latter colour occupying the cheeks and nape of the neck, and upper part of the scapulars, the former covering the head, the orbits of the eyes, the chin and breast, and all the rest of the body. The beak and legs are black; the iris pearl white.

The entire length of this species is fourteen or fifteen inches: the female is rather smaller, and the grey upon her nape not so pure as in the male. Young males do not acquire the pure grey upon their necks that characterises the adult until the second or third year.

The egg of the Jackdaw is figured 128.

INSESSORES.
CONIROSTRES.

CORVIDÆ.

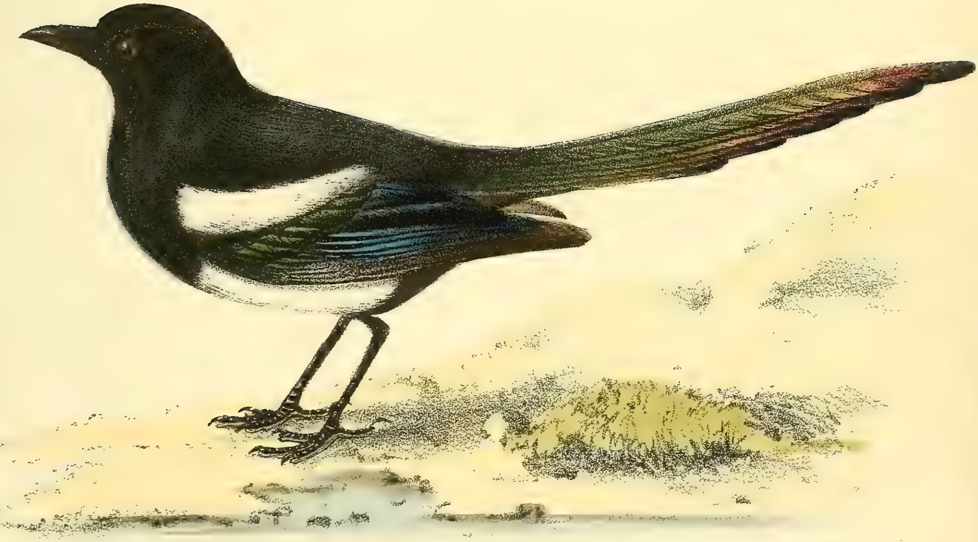
PLATE CXXIX.

MAGPIE.

Corvus pica.

The Magpie is found in most countries of Europe, inhabiting as far north as Lapland. In Norway, according to M. Boié, this species is very common, on the mountains as well as in more level country. In Sweden these birds are also numerous, and in both those countries are much cherished and protected by the inhabitants. It inhabits Iceland; but in Shetland, according to Mr. Edmonston, it is only a straggler. The whole range of northern Asia appears to be well supplied with this lively and brilliant bird, being found in Siberia and Russia, and from thence to China and Japan. In North America it is also abundant, from Kamtschatka and the Rocky Mountains to the Fur-countries about Hudson's Bay: and is found as far south as Louisiana. The southern parts also of Europe and Asia abound with this species. In Scotland it is plentiful, as well as in England, where it is found in most well wooded situations. In England this species appears more confined to woodland localities than in some other countries: probably the persecution it generally experiences, on account of sundry reputed mischievous qualities, has driven it into that retirement that by nature it would not voluntarily confine itself to. In Iceland the Magpie is said not to have formerly existed,

Pl. 129



but to have been introduced by some English colonists subsequent to the reign of Queen Elizabeth. In Belgium this bird is very common.

"In the Isle of Wight," says the Rev. C. Bury, "the Magpie is almost as abundant as I have found it on the opposite shores of Normandy, where I believe it is more plentiful than any other species of bird. I once counted eighteen in company in this neighbourhood, and saw lately the effigies of at least twice that number, nailed up against a keeper's wall, all killed during last winter." This species is not met with in the islands of Corfu or Crete.

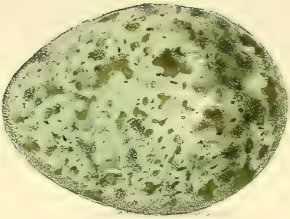
In wooded parts of Surrey we have found this species tolerably plentiful; but it is a shy bird, and chiefly seen when on the wing, flying from one lofty tree to another. Its peculiar flight and appearance when on the wing render it very conspicuous: it carries its tail in a horizontal position, and the length of this member is very apparent when contrasted with the short and fluttering wings: its pied plumage, when the wings are expanded, has also a pleasing effect.

These birds build indifferently in trees or bushes, or under the eaves of houses. "In Norway," says M. Boié, "it builds chiefly in edifices. When built in a tree or bush, where it can be plainly seen, the nest is a beautiful and curious structure. The situation is often cleverly chosen, so as almost to defy access. One that we once met with was built in the top of a scrubby thorn bush, so slender that it was impossible to climb it so as to reach the nest, although not more than eleven or twelve feet from the ground: the nest itself, which was placed in the intersection of the topmost branches, appeared to consist of a cup formed of earth, around which was built a trellice work of dry branches of white-thorn so interlaced together that it would have been impossible to get the hand within a foot of the nest. This barricade was formed, not only beneath and around the nest, but continued above to the height of at least half a yard from the top of the nest, with only one small space left on one side to allow of the entrance of the bird. This curious superstructure, although too thin to serve as a protection from the wind or the rain, or from the heat of the sun, is admirably adapted to defend the young from the attacks of birds of prey, or the eggs from weasels, whose lithe and slender bodies even could not effect an entrance at any part, except, perhaps, the before-mentioned door-way: and equally calculated to defend them from enemies still more cruel and relentless, namely village boys, who would hardly be able, without violence to themselves, to break through such thorny defences.

The eggs of this species are six or seven in number; are in colour bluish white, freckled over, chiefly at the larger end, with ash colour and olive brown.

The Magpie has the head, throat, breast, and upper part of the back of an unmixed black: the same colour also covers the centre of the belly, the thighs and the upper and under coverts of the tail. The greater quill-feathers are brownish black on the outer web, and tips of the inner; the rest of each feather is white: the secondary quills, tertials, and greater wing-coverts, are brilliant metallic purple: the lesser coverts of the wing black. The white scapulars form a distinct line from the shoulder of each wing to the middle of the back: the lower part of the breast and flanks are also white. The long and graduated feathers of the tail are brilliant metallic green from the base to near the tip of the feathers, which are terminated by reflections of olive, violet and steel-blue: the inner webs of all, except the centre pair, are purplish black.

The entire length of this bird is about sixteen inches:



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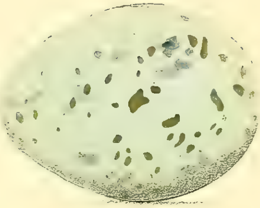

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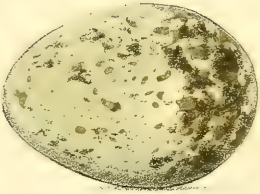


129.

the central feathers of the tail extend seven inches beyond the tips of the closed wings; and the outer pair of tail feathers are four and a half inches shorter than the middle ones.

In its food the Magpie is omnivorous.

The egg of the Magpie is figured 129 in the plate.

INSESSORES. *CORVIDÆ.*

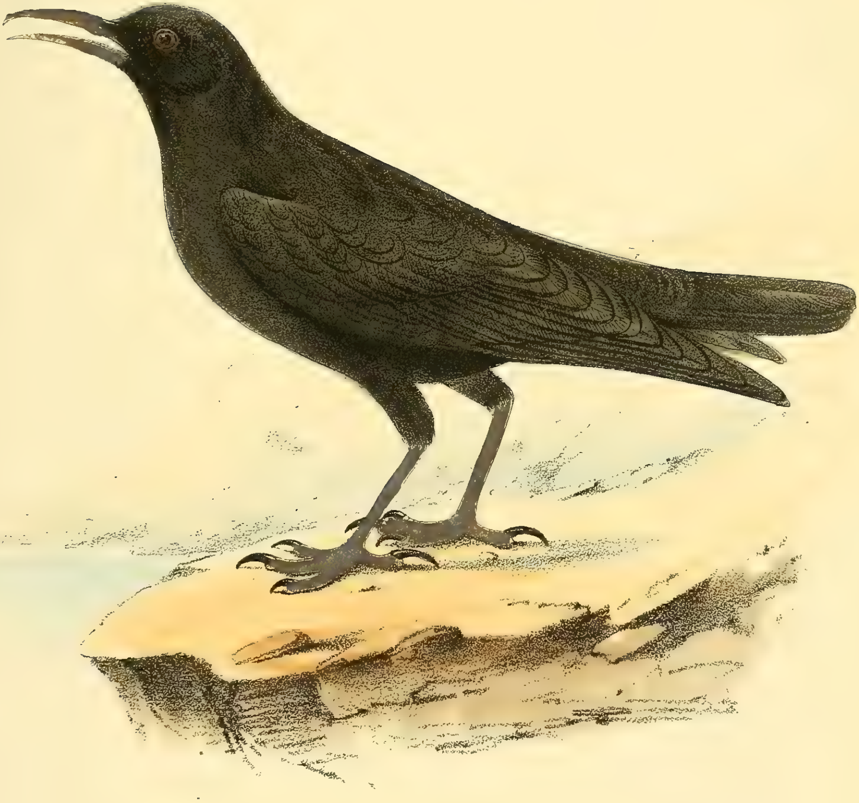
PLATE CXXX.

CHOUGH.

Fregilus graculus. (Selby.)

The Chough is an inhabitant of the mountainous parts of the south of Europe, the southern portions of Siberia, Persia, and the north of Africa. During the summer in these countries, the Chough frequents the highest rocks, isolated towering ruins, and church steeples in lonely villages. In autumn these birds move to the southern side of the mountains; and in the winter pass the day in the valleys, returning at night into the mountains to roost. Troops of fifty or sixty may sometimes be seen to wander about in this manner; but they never leave the vicinity of the mountains, being in all respects of a very alpine disposition. In the vicinity of their breeding-places, they now and then straggle into the valleys as far as where the plough and other agricultural implements are used, but that occurs rarely. The Chough when wild is a very shy and unsociable bird, but capable, like others of the Corvus family, of domestication. Their flight is very quick and elevated: they circle round and round, seeming hardly to move their wings. When on the ground the actions of the Chough are very stately and graceful. They are never seen to perch upon trees; their favourite resting-place is on the shelf of a projecting rock, where they appear to enjoy the warmth of the sun.

130.



Choughs are very clamorous and call out frequently, much in the manner of the jackdaw. The sound of their voice resembles that of other crows; and they utter the word *creea! creea!* and also have a milder call, like *deea!* They sometimes make a chattering noise like the starlings: their French name is *le sonneur*.

Choughs are easily tamed, and are very amusing and clever, and may be taught to pronounce many words; but they are very inquisitive and troublesome, carrying off and hiding any thing they take a fancy to.

If confined in a cage, they peck and beat about its boundaries continually, in search of insects. They drink much, and have a habit of soaking any hard substance that is given them in the way of food. In captivity the Chough will eat meat, bread, berries, worms and other insects. In a wild state they are believed to subsist entirely on insect food.

The Chough breeds only in the most rocky or mountainous districts: their nests are placed in the crevices of the rocks, or on the highest towers of ruined castles, or church steeples that are situated on very elevated spots. The nest is constructed of sticks, and lined with such soft substances as can be procured; and the eggs are four or five in number.

In consequence of the great caution the Chough practices, and the inaccessible places it frequents, it is very difficult to obtain specimens either alive or dead; and the only chance of getting near to them is when they come as low into the valleys, as where the farmer follows his plough, which they sometimes do for the sake of the upturned grubs, when an opportunity of shooting one may occur. As for obtaining the nest and eggs or the young birds, we must be content to be indebted to those venturous persons who are willing to risk life and limb for that purpose.

In England and Scotland the Chough is found in various suitable localities, chiefly lofty and abrupt headlands in the vicinity of the sea. Cornwall, from its peninsular situation and rocky character, may be first looked to as the abode of this species; and there we may conclude, it is of more frequent occurrence than elsewhere in England, since the name of Cornish Chough is very generally applied to this bird. It is found also in several other localities along the southern coast of England, such as parts of the coasts of Devonshire and Sussex, and the Isle of Wight, of which latter place the Rev. C. Bury says, "The Chough was once common along our southern coast, but is so no longer. One or two pairs breed at Freshwater, and two pairs more between Niton and Blackgang." Along the eastern coast of England it is very rare, if not unknown, owing to the general absence of elevated land on that side of the kingdom, with the exception of the cliffs of Dover, which are still believed to afford it a secure asylum. It inhabits parts of the eastern coast of Scotland, such as St. Abbs Head, &c. In various parts of Ireland this bird is also found, as well as in the Isle of Man. It is also met with in Wales.

From the above named rocky eminences these birds seldom wander, so that the appearance of one of them more inland in this country is very unusual.

In Switzerland the Chough is of frequent occurrence, and there shares its mountain eminences in common with another nearly allied species, the Alpine Crow. In the island of Crete it is also found, and breeds upon Mount Ida.

In size the male and female of this species differ very conspicuously, the former looking nearly half as large again in bulk as his mate: in their feathering little or no difference can be perceived. Their beaks have the appearance of being semi-transparent, and are of a beautiful coral colour; they are very slender, and bend downwards at the tip: their legs and feet are of the same colour as the beak; the claws black, and much hooked. The entire plumage is black, glossed on the upper parts with purple: the iris is brown.

The eggs of this species are of a dull white in the ground colour, mottled with ash-grey and light brown: they are rather long in form, and measure about one inch eight lines in length, and little more than one inch in diameter.

The egg figured 130, is that of the Chough.

INSESSORES. *CORVIDÆ.*

PLATE CXXXI.

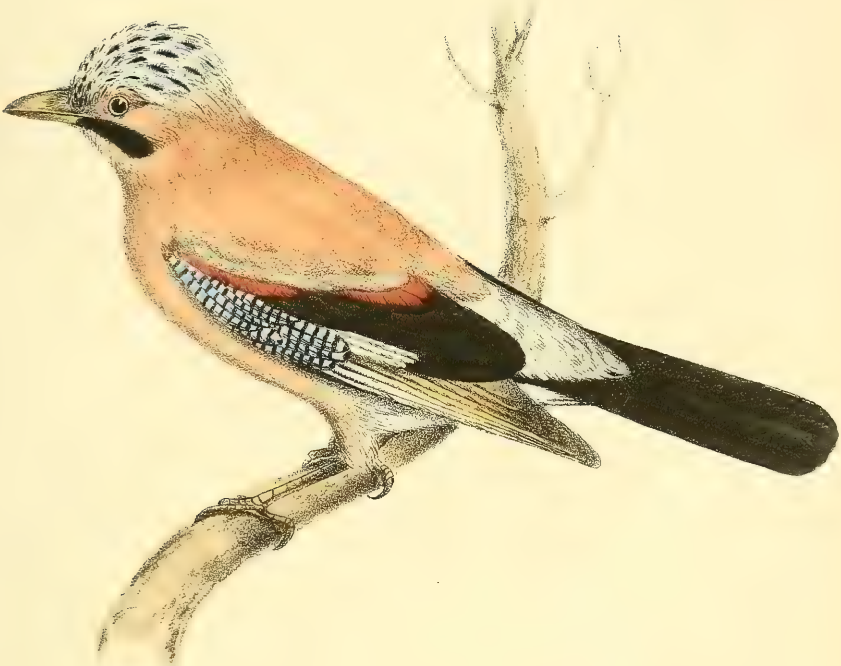
JAY.

Garrulus glandarius.

The Jay is an inhabitant chiefly of woodland districts; and in such localities occurs in almost all the countries of Europe, from the borders of the Mediterranean Sea to Denmark, Sweden, and Norway. In Germany it is very numerous, frequenting chiefly forests of oak and beech. In all those countries the Jay is only a summer resident, returning for the most part in September and October to milder regions to pass the winter: but in England, France, Belgium, Holland, Italy, Spain, &c., it is resident throughout the year. In Scotland, owing probably to the nature of the country, this bird does not appear to be very common; and in Shetland it is only known as a rare straggler. In Belgium Jays are very numerous, especially in autumn, when their numbers are much increased by flocks which appear in October, and which have evidently migrated from more northern climes.

In most of the well-wooded parts of England, the Jay is common and permanently resident, and we are not aware that their numbers are either materially increased or diminished in consequence of the changes of the seasons. In Greece and Asia Minor these birds are found; also along the southern shores of the Mediterranean, namely, Egypt, and the Bar-

Pl 131



bary States. In Corfu, and others of the Ionian Islands, the Jay is common, and resides throughout the year. In Crete it is also said, by Mr. Drummond, to be found in small numbers on the Sfakian mountains, and to breed there.

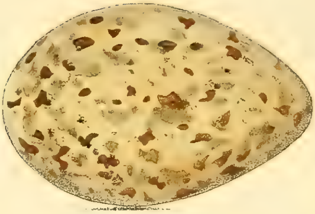
In countries where these birds are migratory, they usually travel, during their autumnal journey, in flocks: their passage is performed in short, interrupted flights, along the skirts of oak-woods, if such abound. On their return in spring they are chiefly to be seen in pairs, instead of companies.

The flight of the Jay is heavy and irregular, as if it required much exertion to sustain its loosely-feathered body in the air. When they are obliged, during migration, to cross a wide open country, they fly quicker for fear of being attacked by birds of prey; and their fear may be perceived by their frequently turning back to their starting point before they finally undertake the journey, and then it is performed in haste, one flying behind another in an irregular manner. During their migration, the Jays alight on the first tree they meet with, and from thence utter their harsh note of joy, on having thus far travelled in safety. They never sit long on one branch, but shift and change continually; and when on the ground they hop about very awkwardly. The manners of the Jays are very amusing; they are for ever changing their position, raising and depressing the feathers on the head, and uttering with every motion some unaccountable note. Their usual call is a deep sounding *Wrae*, or ***Rrae!*** but the varied notes and imitative cries of the Jay are not to be described, except by saying that it can imitate the voice of almost every animal that it hears abroad; whether the horse, the dog, the cat, &c. and the notes of many birds. Male birds, if caught young and tamed, are in consequence of these imitative powers very amusing.

The food of the Jay consists in summer chiefly of worms, cockchafers, and other insects, with their larvæ and grubs; small frogs, mice, birds-eggs, and young birds, and fruit of all descriptions. During the winter months they live on nuts, acorns, beech-mast, peas, &c., which they collect during the autumn and hide in holes in trees, and under fallen leaves in some convenient spot. The Jay is said to be occasionally destructive to green corn, by plucking and swallowing the tender ears. Their relish for acorns as winter food is so great, that they search for them beneath the snow. The Jay is accused of devouring young birds, and even young partridges, which causes it to be looked upon with suspicion by gamekeepers, &c. In captivity these birds will partake readily of almost every thing that comes to table.

The Jay builds chiefly in coppice-wood and fir plantations, from twelve to thirty feet from the ground. One nest in our collection, which was taken from a plantation of spruce-firs on the outskirts of Claremont, in Surrey, was at about the latter elevation. It was placed, in a situation similar to those chosen by the wood-pigeon, upon the flat and spreading branch of a spruce-fir; and composed of a few twigs as a ground-work, upon which are placed a great number of slender branches and roots, apparently of heath, becoming finer towards the interior of the hollow; and a few long horsehairs are laid round withinside. This specimen is rather a well-constructed one for this species, having its branches and roots pretty closely interwoven. Some specimens are far more slightly built. One nest which we took from the branch of a holly was little more compact after removal than those of the pigeon family, the stiff nature of the leaves among which it was placed having been its chief support.

The eggs of this species, which sometimes amount to six in number, appear at a little distance, of a pale greenish stone colour, but, on closer inspection, are found to be minutely



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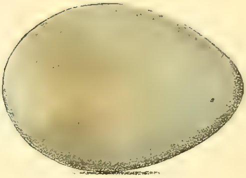


131.

freckled over with pale grey and olive-brown: they are, in some specimens, as much as fifteen lines long, by eleven lines diameter; although some are much smaller; and the surface in most specimens bears very little polish.

The entire length of this species is rather above thirteen inches: the beak measures about ten lines from the tip to the forehead, the wing measures seven inches from the carpus to the tip, and the tail extends about two and a half inches beyond the tips of the closed wings.

The lively and varied colours of this bird render it, in point of plumage, one of the handsomest of our indigenous species; the feathers are chiefly broad, loose, and soft, and the colours as follows:—the feathers on the forehead and crown of the head are bluish-white, with black shaft streaks and rays, and a black moustache passes downwards from the corner of the lower mandible: the rest of the head, cheeks, back, and scapulars, breast and flanks, are pale reddish cinnamon, blushed with bluish-grey on the scapulars; the upper and under coverts of the tail, the thighs and belly are white; the tail is black. The wings, in which the chief beauty of the bird resides, are distinguished by brilliant feathers crossed by bars of rich blue, black, and white; these occupy the ridge of the wing, and some of the greater coverts; the rest of the greater coverts are black; the lesser coverts of the wings and some of the tertial feathers nearest the body are bright bay. The greater quill feathers of the wing are dusky on the inner web, and pale brownish white on the outer. Some of the secondary quills have a portion of white on the outer web, the rest black. The eyes are pale blue, the beak and legs reddish brown.

The egg figured 131 is that of the Jay.

INSESSORES. *CORVIDÆ.*

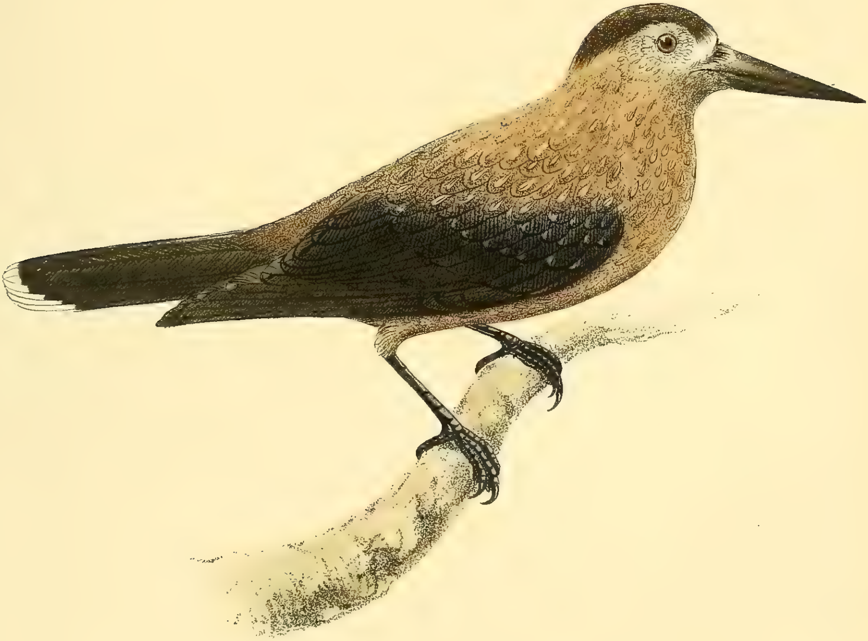
PLATE CXXXII.

NUTCRACKER.

NUCIFRAGA CARYOCATACTES.

The Nutcracker, although a rare bird in this country, is well-known all over Europe, the North of Asia, and North America. In Europe it is found far north in Sweden, extending over Russia to Siberia and Kamschatka.

This species is nowhere found in great abundance, although in the mountainous forests of Switzerland, its favourite locality, they are considered plentiful. In the southern parts of Europe the Nutcracker is only an occasional visitant, and in the north he regularly arrives in summer and departs towards the autumn. During their migration they travel in companies of six or eight at most, and frequently alone, which occasions their being less observed ; they seldom make their call note heard, and rarely leaving the thickest foliage and bushes, unless they are driven out by some cause or other, they remain hidden and unseen. During the summer they inhabit lonely mountain forests of pine or copse, chiefly seeking the deepest parts of the forest, where there are open spaces and springs of fresh water. Towards autumn they leave those retreats for oak and beech woods, intermixed with hazel-nut trees, and are seen even in the lower parts of the country, until nuts become scarce : they are then busily employed among



the pine and fir trees, and after traversing them, they reach their summer retreat about April, where they make arrangements for the reproduction of their species.

The Nutcracker is remarkably devoid of fear; it is reported that it is very easy to knock the old birds down with a stick, where their nest is near, and that the young birds allow themselves to be taken from off the branches by the hand. The shepherds in the Thuringerwald believe (forest of Thuringia) that these birds came from Paradise, and call them the birds of innocence.

The flight of the Nutcracker resembles that of the Jackdaw, but being wavering and unsteady, he avoids crossing any extended space. In the course of its migration, should any open country intervene, this bird avails itself of every bush in its way, for the purpose of resting.

The voice of the Nutcracker is not harmonious, being a repeated harsh sound like *crack*, *crack!* and *curr!* the latter of which he calls very loud in the spring of the year, when perched on the top of a tree.

As may be supposed, this species is easily tamed, and eats anything that is offered it; but care must be taken that it is not left alone with other birds, as it devours them immediately, even the jay becomes its prey if they are left together.

Its beak is so strong, and its habits so destructive, that a wooden cage will not hold it, and it requires nuts to amuse it when caged.

The food of the Nutcracker consists in summer, in insects of the larger kinds, even bees and wasps; in autumn, berries, nuts, acorns, and beech-nuts; in winter it searches for berries beneath snow; and in the spring feeds principally on the cones of the fir and pine, which he either entirely consumes, or strips while on the ground in a peculiar manner.

This bird is said to be very partial to flesh, and to take advantage of every opportunity of obtaining it, for which purpose he frequents the bathing places of birds, or attacks them during a heavy shower; he also plunders nests of the young or eggs. When he attacks a bird, he takes it with the beak by the neck, and placing one foot on the head, pecks first the brain, and afterwards devours the bird piecemeal. One individual has been known to devour a squirrel without assistance.

This bird fills his crop on convenient occasions, in order to masticate and consume the contents at some place of retreat, or hides food in some corner for the next meal. The acorns he softens in his crop, reproduces them, peels them and eats the inside. Hazel-nuts are held with the feet and broken with the beak, &c.; and its taste for this food is so great, that it will remain in the vicinity of a hazel-tree, if not disturbed, until every nut is devoured; in such a case, the empty shells are found scattered about.

In the deepest mountain forests, the Nutcracker builds its nest in a hollow tree, and is said to deposit five or six eggs of a yellow grey colour, spotted sparingly with rust colour, and a few fine dark brown spots. Coch has a nest supposed to be of the Nutcracker, but the eggs are very polished, round-shaped, and of a uniform grey.

Switzerland is their chief place of resort in Europe.

Although nearly allied to the crow family, with which it was formerly incorporated, the Nutcracker has points of resemblance in structure and habits that appear to render it entitled to generic distinction; it has accordingly been separated by Brisson from the true crows, under the name of *Nucifraga*, and placed next before the woodpeckers, to whose manners and modes of life it bears much resemblance. Its resemblance in structural form to the woodpeckers, appears to reside chiefly in the beak, which is long, straight, and horny, and like theirs adapted to the excavation of holes in trees for purposes of nidification. Some peculiarities, however, in the form of the beak and tongue require more detail: these, although not supplied by our own observation (the rare occurrence of this bird in England precluding personal inspection) are from a source worthy of credit. The beak is almost straight, the upper mandible being only a little arched towards the tip; in form it is nearly cylindrical, with a slight depression on the sides. The tip of the upper mandible projects a little beyond the under, and the whole character indicates strength. The under mandible has a lengthened knob on the inside, like that which occupies the upper mandible in the bunting family; this protuberance or knob commences about the middle of the beak, and reaches almost to the tip. The tongue is of a very peculiar form; the basal part of it is short, flat, and thin, but towards the tip divided into two pointed forks, which lie one on each side of the knob or protuberance when the beak is closed. The ridge of the knob is very sharp, and calculated for breaking the nuts and other hard berries on which this bird feeds. The nostrils are small and placed near the base of the beak, and covered with short bristles. The irides are dark chestnut colour. The legs of the Nutcracker are very much like those of the crows, black in colour and largely scaled along the tarsi and the upper surface of the toes. The claws are much arched and very sharp; the hinder claw in particular large in size.

The head of the Nutcracker is large, and the general feathering is loose like that of the jay. The bristles which cover the nostrils are white with brown streaks; the region of the eyes and the lore are dirty white; forehead, crown, neck, and rump, dark brown; all the rest of the plumage, except the wings and tail, dark brown spotted with white; each of these white spots is placed on the centre of the feather, and are regulated in size as follows: On the throat these white marks are small dashes, and appear to be most divided. On the temples they are larger, and again on the cheeks they increase in size, these also becoming more drop shaped: they are largest on the upper part of the breast.

On the back and chest these white pear-shaped marks are surrounded by a darker brown zone, which melts as it were in the general colour of the plumage.

The thighs are dark brown in front and spotted behind, like the rest of the plumage. The vent and under tail-coverts are pure white; the upper tail-coverts pure black. The wings are black, slightly reflecting blue, the lesser wing-coverts with triangular spots, the larger the same, but with much smaller spots.

The larger quill-feathers have only a small triangular spot from the sixth to the twelfth feather, towards the tip; and the black of the feathers becomes dusky at the tip. The inner or under wing feathers have an oval white spot on the inner web of the fifth to the eighth quill-feather. The under wing coverts are dusky with triangular white spots on their tips; the tail is black with slight blue reflections and white ends, narrow on the middle feather, but enlarging to nearly one inch on the outer feather.

The female differs very little from the male in colouring, but there are varieties of the Nutcracker which are quite white.

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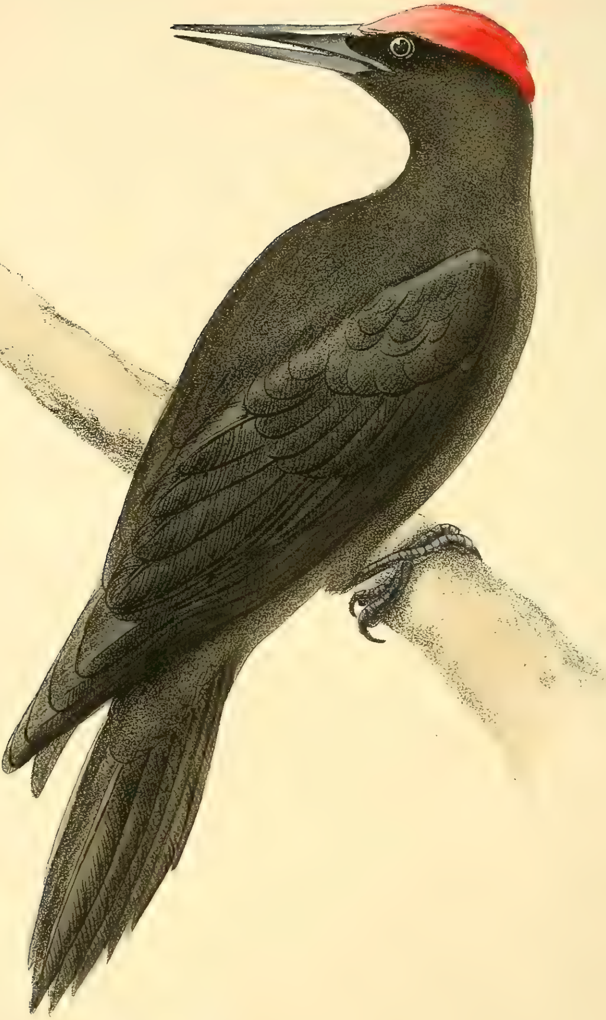


INSESSORES.
SCANSORES.

PICIDÆ.

PLATE CXXXIII.

GREAT BLACK WOODPECKER.

Picus martius.

Of this singular and beautiful family, eight species are enumerated by Temminck as belonging to Europe; four only of these are met with in England, of which the species under present consideration is the most rare.

The Great Black Woodpecker is an inhabitant of the cold as well as the temperate parts of Europe, but does not penetrate very far north, in consequence of the absence of large trees beyond a certain latitude. Russia in Europe, and Asia, Persia, France, some parts of Switzerland and Germany are inhabited by this bird. It is also found in North America, Chili, and Porto Rico. Although nowhere plentiful, this bird is scattered over the wooded parts of Northern Europe, it is more rare in the central parts, and in the most southern countries is nearly unknown.

The favourite haunts of the Black Woodpecker are the extensive forests of pine that cover so much of Northern Europe and Asia. These lonely and obscure forests abound in old and decayed trees, which supply them with food, and serve the purpose of their breeding retreats. When met with in forests of mixed timber, such as oaks, beech, &c., or in young plantations, these birds may be considered as merely no their journey from one spot to another.

These birds are exceedingly shy and unsociable, and scarcely associate with their own kind, especially during the breeding season, at which time they will scarcely allow one of their own species to locate itself within a mile. The nightly retreat of this species is in a hole in some tree. The Black Woodpecker is a strong, active, and lively bird ; its restless nature drives it from spot to spot ; and when aware of being observed too nearly, it endeavours to effect its escape unnoticed by its pursuers at an incredible rate, but may generally be detected by the noise it makes, first in one place, then in another, in less time than seems possible. When hurried it runs up a tree, taking reiterated leaps forward, with such force, that its claws may plainly be heard hooking into the rough bark of the tree, and its tail beating against it alternately to balance itself. Under these circumstances, the bird holds its head back and raises its breast from the tree, which gives it in that attitude a noble appearance.

The alertness of the Black Woodpecker in running up the stems and branches of a tree, is equalled by the ease and swiftness with which he runs round and round them, when shunning observation, in the same posture as before described, with the head thrown back and the breast raised. To descend with the head downwards, appears impossible to all the Woodpeckers, for which reason they all commence their operations at the bottom of a tree, running upwards in search of their insect food among the bark and inequalities of the stems. For running on the ground, the Black Woodpecker is not formed ; and it is his usual custom to fly direct from the top of a tree to the ground.

The facility with which this bird makes a hole in a tree for its sleeping and nesting apartment is very surprising, loosening splinters of wood several inches long and many lines broad, by which process he makes a noise as if woodmen were at work in the forest.

The flight of the Black Woodpecker is rather peculiar, opening his wings very wide in front of him, and beating them with long sweeps in his progress through the air, much in the manner of the jay. The unsociableness and unfriendliness of the bird before us is carried so far, that when a pair of them perceive one lonely bird about their haunts, they will pursue it until it leaves the vicinity. The call-note of this Woodpecker is very loud and penetrating, and sounds like *cree, cree!* and *kirr, kirr!* several other sounds are expressed by them during their time of courting, and the manner in which they use their beaks in hammering, produces a vibrating noise sounding like *urr*, or *orr!* which may be heard at the distance of half a mile, and this is occasioned by the bird hanging on some dead upper branch of a tree, and beating against the broken extremity of the same with great velocity, thus causing the branch to vibrate; the beating and vibrating together give the sound produced. All the Woodpeckers practice this last mentioned pastime, whereby the forests inhabited by them resound in the spring with this singular noise in many keys.

While the Woodpeckers are thus engaged, they invariably erect the feathers on their heads; and as they are less able to detect an enemy owing to their own noise, they may at such a time be approached very near, and must be admired when seen thus engaged, with the sun shining on their very beautiful crimson crests in fanning motion.

In the month of March the male Woodpecker begins this jarring music, and continues it while the female sits upon her eggs; the male only makes this noise, the female never.

The food of this Woodpecker consists of insects and their larvæ, which it procures from between the interstices of the bark of trees and decayed parts; also ants, which it swallows in such quantities when it meets with a nest, that its stomach and crop have been found filled with them. The utility of this bird in thus consuming and destroying such numbers of insects in all stages and of all kinds is very apparent.

In consequence of the food of the Black Woodpecker, much of which consists of the wood-boring maggots of beetles and moths, and its constantly inhabiting decayed wood, this bird has a very unpleasant smell, which is so powerful, that sporting dogs decline taking them in their mouths, when shot, to bring them to their master.

The Black Woodpecker only breeds in the deepest pine forests, but does not always choose a fir tree in which to excavate a hole for its nest or residence, as it is known to breed also in oaks and beeches, provided the trees are old and large.

About the beginning of April, preparations are made for the nest, when the birds search for a tree where a branch has been torn out by the wind, or where some decayed place in the wood may aid the formation of a hole, otherwise they chisel a hole of a sufficient size, to introduce a man's hand, and after this opening is made and perfectly rounded, it is terminated by a cavity or cup about nine inches in diameter, and in a direction slanting downward from the entrance hole; it occupies about a fortnight to excavate and finish the apartment, which is usually fifty or sixty feet from the ground. The female deposits her four, five, or six eggs, in the bare cavity; these are so very transparent and delicate, that the yolk at first may be plainly seen through the shell. The male and female sit for seventeen or eighteen days before the young brood come forth; the parent birds feed their nestlings with ants eggs, and are so much attached to them, that they will hardly quit the nest if an attempt is made to take the young from them.

It is somewhat difficult to find the breeding place of this species, even when the vicinity is known, unless attention is paid to the wood which lays at the foot of the tree in splinters, and is often in sufficient abundance to betray the cause.

Many specimens of this woodpecker have been shot in England at different times: sufficient to establish its claim to be reckoned among British stragglers. It has been met with in several counties, south as well as north: also in Scotland. It does not appear that any attempt has been made by this species to breed or locate itself in this country, and judging from its northern habits it is probable that further observation will tend to establish it as nothing more than a winter straggler from more northern parts.

The Great Black Woodpecker is the largest of the Woodpeckers known in Europe. In length its measurement is from nineteen to twenty inches, from the tip of the beak to the extremity of the tail: its weight varies from twenty to twenty-three ounces. The length of the tail is seven inches, and the closed wings cover about half its length. The tail-feathers decrease in length from the central to the outer pair, the latter measuring no more than two inches and a half. All the tail-feathers have the shafts strong, and of the substance of whalebone, much pointed or tapering at the tips, hollow on the under surface, and having the webs towards the tips resembling bristles. The quill-feathers of the wings are in their proportions as follows: the first is short, narrow, and very pointed; the second twice as long; the third is broader and less pointed, and an inch and a quarter longer than the second; the fourth still broader and half an inch longer; the fifth only one line longer, and the longest in the wing. These quill-feathers are weaker than those of any other of the woodpeckers. The secondaries are particularly broad and long in proportion: the upper and under wing-coverts are short, tending altogether to form a very peculiar shape of the wing, and consequently occasioning a different flight from others of its species. The beak is very strong and straight, two inches and a quarter in length, ten lines broad, and seven lines thick at the base; the lower mandible by far the lesser in size: on the upper mandible the ridges are particularly sharp and abrupt, like those on the upper surface of rushes. The beak is of a grey horn colour, yellowish towards the corners of the mouth; the nostrils are large and oval shaped, they are placed in the grooves of the ridge which runs from opposite the eyes towards the tip of the beak, and not far from the base; they are covered with strong bristles: the under mandible and chin are also covered with strong projecting bristles.

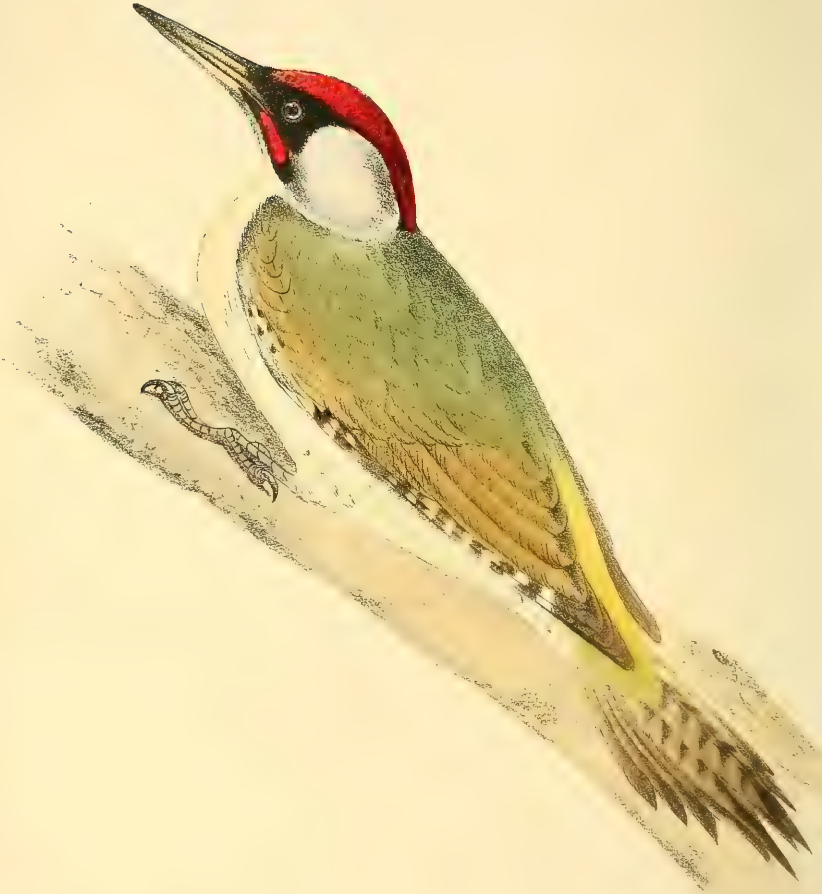
The tongue of this species, although not so long as that of the green woodpecker, can be projected three inches and a quarter beyond the tip of the beak, when in the act of taking food, which it secures by means of its horny point armed with sharp barbs; the colour of the tongue, as well as that of the inside of the beak and swallow, is flesh-red. The iris is sulphur-yellow, the black pupil slightly extended towards the corners of the mouth beyond its otherwise perfect circle. In young birds the iris is grey. The slate-coloured legs are strong and largely scaled, and armed with sharp and arched black claws.

The general feathering of the Black Woodpecker is soft and loose, closest on the rump, but about the neck almost unconnected and very thin.

The adult male has the upper part of the head, from the bristles on the nostrils to the back and nape of the neck, of a splendid scarlet-red: the rest of the head, particularly about the eyes, mouth and chin deep jet-black; the rest of the feathering is black, but the tips of the quill-feathers are rather rusty.

The female has only the red on the back of the head, and is much less in size.

The egg figured 133 is that of the Black Woodpecker.



INSESSORES:
SCANSORES.

PICIDÆ.

PLATE CXXXIV.

GREEN WOODPECKER.

Picus viridis.

The Green Woodpecker is the most common of its tribe that is found in Britain, and is equally so in most parts of Europe; it is found in Siberia as well as Egypt, is rare in Holland and some parts of Germany; and nowhere very plentiful, although frequent.

The jealous nature of the Woodpeckers respecting their chosen habitat causes them to be much dispersed. Woods and forests are the general resort of the bird now before us, but hilly or level countries are chosen in preference to that which is mountainous. Young plantations of timber in the vicinity of rivers and pasture land this bird likes to visit, and scattered trees of many kinds and sizes; its choice seems more to favour oak, beech, elm, lime, and willow trees, etc., than fir or pine, as foliage is sought for by it. During severe winter weather it also approaches farms and villages, searching for food among the bark of fruit trees, decayed buildings, and barns.

This bird is very lively, but watchful, although less shy than the black woodpecker; its power of climbing trees in all directions except downwards is equal to that of any of its tribe, and its movements on the ground surpass in agility those of all the others, hopping about in search of food with less awkwardness and for a longer continuance; nevertheless it is clumsy in comparison of other land birds of most kinds, and when on the ground carries its body horizontally, dragging its tail as it were behind.

This bird is not so fond of excavating as the last mentioned species, and less frequently employed in tapping with its beak.

The flight of the Green Woodpecker is attended with much and rapid fluttering of the wings, thus producing a vibrating noise that is plainly heard in still, misty weather. Its progress through the air is in long arched lines, formed by raising itself by fluttering in the manner described, and then again shooting along with half-closed wings. When on the wing he extends his head and neck at full length. This bird flies usually but short distances, although quite capable of flying far without much exertion. Its restless nature is very observable by its note, *glu, glu, glu, gluck!* first uttered in one place then in another incessantly.

It is an impracticable attempt to tame the Green Woodpecker; we have ourselves tried it, but without success, and our drawing is made from a bird under these circumstances. In Claremont park, Esher, Oatlands' estate, Walton, and all wooded parts of Surrey, the Green Woodpecker is frequently enough seen, and usually known by the name of yaffle.

The Green Woodpecker seeks for and obtains its food as often on the ground as among the trees, and this consists principally in ants and their eggs, namely, the *Formica rubra*, *F. fusca*, *F. nigra*, and *F. rufa*, but not the *F. herculeana*. The bird digs about the ants' nests or procures them from among the bark of trees, decayed wood, etc.; and in winter, when the ground is frozen hard, breaks it open for the purpose of obtaining his favourite meal: at that time it is the *F. rufa* which he gets at most easily.

The larvæ of butterflies and beetles form part of its food ; also the larvæ and eggs of wasps and humble-bees. The search of this bird in obtaining its food is chiefly confined to the insects and larvæ that are found just below the upper bark of the tree, or in the cracks and holes formed by decay, as it does not break into the wood like the black woodpecker ; flies, spiders, &c., all are brought out of their retreat by the assistance of its beautifully-adapted instrument, the tongue with its barbed tip, which has besides a glutinous material on its surface, to which all small substances stick when it is introduced into some hole or rent.

The Green Woodpecker breeds in woods of mixed timber, always choosing a tree which is internally decayed, although it may appear healthy from the outside ; they will frequently resume an old nest or cleanse it out, and they will even return to the same place year after year if they are not frightened away. The preparations for breeding begin as early as February, and the female deposits her beautifully polished white eggs, six to eight in number, on the bare shavings of the hole, where the young show themselves after about eighteen days' incubation. The parents are also very much attached to their young, which they foster jointly even after they are full-grown ; but when they are considered ready to turn out, the whole brood starts at once, following their parents. In case their eggs are taken from them, they will lay as many more in a short time ; but if they lose their young brood, they are said not to breed again the same year. The length of this beautiful bird is from twelve to thirteen inches and a half, the tail measures four inches and a half, of which the closed wings cover hardly one half; the wing measures seven inches; the first quill-feather is very short, the fourth and fifth the longest in the wing. The tail consists of twelve feathers, of which the two middle feathers are the longest, and the rest decrease in length as they approach the sixth pair or outer feathers, which are one inch and a third shorter than the middle pair. These tail feathers are very pointed, and their shafts are the same as in the former species, like whalebone, and hollow or grooved on the under surface. The beak of the Green Woodpecker is one and three-fourths of an inch long, six lines broad at the base and five lines high: the upper mandible is slanting and somewhat arched towards the tip, but the under mandible is quite straight, and rather shorter than the upper; the nostrils are oval, and placed near the base on the groove of the upper mandible. The iris is pearl white.

The tongue is seven inches and a half long from the root to the tip, and able to project six inches beyond the tip of the beak. The legs are strong, and covered with large scales in front and small ones at the back, the tops of the toes covered closely with scales, between which they seem to be filled up with clay, and the soles of the feet are warty. The arched claws are large in size, compressed at the sides, and very sharp. The colour of the legs is a greyish-lead, tinged with green, the soles brownish, the claws yellowish-dusky. The length of the tarsi is one inch three lines, the outer front toe with the claw one inch six lines, the inner hinder toe with the claw seven lines. All woodpeckers, having two toes before and two behind, are well adapted for running up or climbing among the trees.

The feathering of the adult male of the Green Woodpecker is most beautiful, and that of a living specimen is not to be represented by colouring. The forehead is jet black, the top and back of the head and nape of the neck covered with a crimson crest of smooth, elongated feathers, ending in a point at the nape, and most brilliant towards the hinder part: from the base of the beak, over and around the eyes, extends a jet black patch, ending in a point behind the eye; also from the base of the under mandible proceeds a patch of the same colour downwards, in the centre of which is a space of the above-mentioned beautiful crimson. The neck, back and shoulders, are of a golden grass green ; the rump and upper tail-coverts are gold yellow. The sides of the neck are greyish-green, the throat brownish-white ; the cheeks, chin, and all the under parts are pale greenish-grey and yellow ; the under tail-coverts have dusky greenish transverse markings, which decrease and are lost on the thighs. The larger quill-feathers and their coverts are dusky, with dingy white square markings, the tips of these feathers not spotted ; the secondaries have only on the inner webs the dusky colour, the outer webs olive-green, most impure towards the primaries : the wing-coverts partake of the olive and green of the back. The tail is transversely barred with greenish-grey and dusky, of which the dusky bars meet at the shafts, and end in the entire dusky tips of the feathers : the under part of the tail is dull, dusky, and greyish-white in bars, and the under wing-feathers the same, with kidney-shaped spots forming rows, the whole tinged with greenish-yellow.

The female is less beautiful in colouring than the male bird, rather less in size, although very similar in markings.

A living bird of this species, that was in our possession for a short time, devoured fiercely such food as we put into its cage, consisting of insects and raw meat, and employed itself in climbing about the wires, and thrusting out its slender and flexible tongue continually, searching in every crevice. The beauty of this organ is very singular : it has the appearance of a silver ribbon, or rather from its transparency a stream of molten glass ; and the rapidity with which it is protruded and withdrawn is so great, that the eye is dazzled in following its motions ; it appears flexible in the highest degree.

The egg, No. 134, is that of the Green Woodpecker.

PLATE CXXXV.

GREAT SPOTTED WOODPECKER

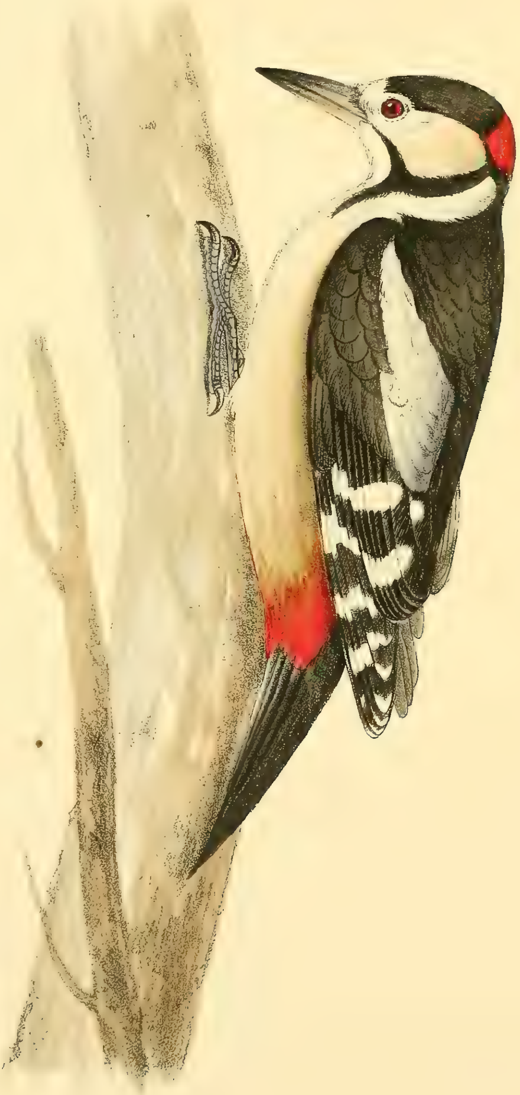
PICUS MAJOR.

THE general appearance of the Great Spotted Woodpecker is so very different from that of the foregoing, as well in its size, its shorter form, and the distribution of the colouring, that there is no chance of mistaking this bird in England for any of its allied species; but on the Continent of Europe there are several woodpeckers which resemble it in the eyes of a casual observer, such as the *Picus leuconotus*, and *Picus medius*, of which no specimens have hitherto been taken in England.

The present species here represented is found all over Europe, North America, and Asia, but chiefly in the northern parts of those quarters of the globe; in Europe it occurs from Sweden and Russia to Italy, and is more frequently met with than any other species of the woodpecker family.

Towards the autumn of the year these birds wander more than at any other time, but not sufficiently so to be considered migratory; they return to their summer quarters about the month of March. The chief retreat of this species is in pine forests, from whence they absent themselves occasionally, when they locate themselves in many other forest plantations of different kinds. During the day time this

135.



species is busied about the stems and branches of trees of all kinds in continual search for its insect food, and at night retires to a hole in a tree to roost.

The Spotted Woodpecker is a powerful, lively, clever, and courageous bird, and contributes greatly to enliven the melancholy quiet of a pine forest, by continually pecking, jarring, dropping splinters of wood on the ground, calling its mate, &c.; and when thus employed, it is generally accompanied by titmice, golden-crested wrens, and creepers, whose minor chatterings assist in the concert. The Woodpecker, however, cares not for their company, as he is very unsociable to all, jealous of his food, and quarrelsome.

The jealousy of this bird leads it into danger, as it is sure to take notice if any one taps against a tree; and approaches sometimes near enough to be caught with the hand. When on the ground, its progress is neither very rapid nor elegant; but he displays the greatest agility in or about a tree, which he traverses in all directions while he can have his head upwards; and, on reaching the very top, it is not uncommon to see him perch on a branch like any other bird in a transverse position. When climbing, this bird, like the rest of his family, makes great use of his tail in balancing himself.

The flight of the Spotted Woodpecker is strong and regular, forming long curved lines, first quickly moving the wings, and then again drawing them closer to the body.

The call-note of this bird is a quickly expressed, *gich*, or *kirr!* uttered only once at a time at long intervals, in which he differs from the foregoing Woodpecker: even in the pairing season the Spotted Woodpecker utters his call-note but once at a time, repeating it at certain intervals when perched in the top of a tree; he seems, however, to make up for this want of vocal noise, by jarring the more industriously with his beak against a dead upper branch of the tree which holds him. This favorite call of the Woodpeckers is very remarkable; and if it were more generally known, there would be more specimens obtained by sportsmen who seek for them.

When the present species perceives that danger approaches, he turns to the opposite side of the stem, or runs up the tree to the very top, from which he flies to the top of some other tree; but when only in search of food, his flight is invariably directed to the foot of the neighbouring tree, which he ascends in like manner in search of food.

The food of this bird consists of insects, and their eggs, larvæ, and crysalides, also nuts and seeds; but he does not take ants or their eggs, like the foregoing species. When employed in pecking at the bark of some branch, he may frequently be seen to run round in great haste, which he does for the purpose of catching the insects that try to escape in the manner that worms crawl out of the earth when a mole moves that element; he also destroys many caterpillars, and hidden eggs among the bark. The seed of the pine supplies him chiefly during the winter season.

We have obtained a brood of the Spotted Woodpecker in Surrey; it was taken from a hole in an oak, on the common behind Claremont; the tree was situated close to a cottage, and near the main road to Letherhead. There were four young birds quite fledged, and the old male: they subsisted some days on raw meat chopped fine, and bread and milk; but their smell would alone have been enough to induce us to part with them after making our observations on them, even if they would have shown more good will in feeding, and less disposition to batter their cage to pieces.

About March and April the birds in question become very clamorous, and begin to look out for a breeding-place, giving the preference generally to pine-trees; and if they do not find a cavity ready for their purpose, they make one for themselves, choosing a damaged or unsound part, which will most readily yield to the strokes of their beak; and after rounding perfectly the inner cup, which is generally at the end of an entrance of six or seven inches, wide enough for ingress and egress, the female deposits her polished white eggs, four or five in number, on the bare wood; and after fifteen or sixteen days incubation, the young crawl forth with large heads, eyes shut, and bodies almost naked. Both parents foster their young, not only while in the nest, but long after, in order to introduce them into their future laborious existence.

The Spotted Woodpecker is from nine inches to nine inches and a half in length; the wings measure six inches from the carpus to the tip; the tail three inches and three quarters; the feathers of which decrease in length towards the sides, so much that the outer feather only measures one inch and a quarter. The beak is proportionately shorter and thicker than that of the other British species of Woodpeckers; its length is one inch two lines; and its thickness at the base five lines. The colour of the beak is lead-grey, dark at the tip; the base yellow. The tongue of the Great Spotted Woodpecker is only two inches long, flesh-coloured about the throat and swallow, and bluish towards the tip, as is also the inside of the beak. The iris is blood-red in adult male birds; dark brown in middle-aged, and grey in young birds. The legs are feathered part of the way down the front; they are one inch long, strong made, and strongly sealed; the claws are much arched and large, grooved beneath and sharp pointed; the colour of the legs is yellowish grey, claws black.

The feathering of the adult male is as follows:—the forehead is covered with bristle-like feathers, in colour brownish or rust yellow; the region of the eyes, cheeks, and corners of the mouth are a soiled white; the top of the head jet black: from the lower mandible towards the back of the head, runs a black line which meets at the neck behind, projecting in front alongside the throat, where it forms a half-moon-shaped patch. Between the back of the head and the neck is a patch of very brilliant carmine red; the entire back, the shoulders and the tail are black with a blue cast.

The chin, throat, breast, and sides are dirty white, on the belly the tips of the feathers are tinged with yellowish-red, but the rump and under tail-coverts are carmine-red.

The quill-feathers are black with six or seven white bars, which are formed by square white spots on the outer webs of the quills.

The middle tail-feathers are altogether black, the next have white tips, and the white extends upon the feathers as they leave the middle of the tail.

The female has no red in the nape of the neck.

The egg figured 135 is that of the Great Spotted Woodpecker.

END OF THE THIRD VOLUME.

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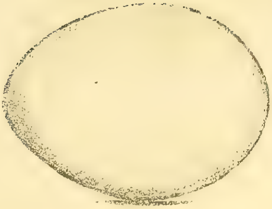

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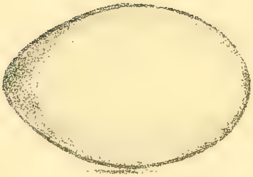

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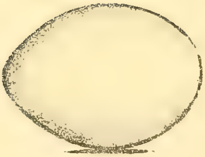

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